

GOLD MEDAL, VIENNA, 1883.

ORIGINALITY AND RELIABILITY

RECEIVED HIGHEST AWARDS—MEDALS AND DIPLOMAS—OVER
ALL EUROPEAN AND AMERICAN COMPETITORS.PHILADELPHIA, 1876,
MELBOURNE, 1880,
NEW YORK, 1881,PARIS, 1878,
NEW YORK, 1880,
ATLANTA, 1881,NEW YORK, 1879,
MATANZAS, 1881,
CHARLESTON, 1883.**SEABURY & JOHNSON,**

MANUFACTURERS OF

India Rubber, Medicinal, Adhesive,
Bunion, Corn, Court,**PLASTERS**Kid, Leather, Mustard, Spread,
Pharmaceutical and SurgicalOf every description, in the most approved form. Also, Absorbent, Borated, Salicylated and
Carbolated Cotton, Antiseptic Gauze, Bandages, Cotton Wool, Gutta Percha Tissue,
Lint, Oil Silk and Muslin, and every variety of Surgical and Antiseptic Dressings.**SPECIALTY:**—Pharmacopoeia & Surgical Plasters, in India Rubber Combination, Porous & Spread.

Office & Salesroom, 1 & 2 Australian Ave., London, E. C., England.

TERMS FOR 1882.MONTHLY SETTLEMENTS. ONE PER CENT. FOR CASH WILL BE ALLOWED, PROVIDED BILLS ARE REMITTED FOR WITHIN TEN
DAYS FROM DATE OF SHIPMENT, NOT OTHERWISE.**DISCOUNTS:**—Goods to be selected from our List at pleasure.Orders amounting to £25, nett, will be subject to - - - 20 per cent. discount.
" " " 10, " " " " " 15 " "
" " " 5, " " " " " 10 " "

Orders under £5, nett, - - - long prices will be charged without discount.

CARRIAGE ALLOWED OR PREPAID ON £25, NETT, ORDERS ONLY.

EVERY ARTICLE WARRANTED.**Pharmacopoeia & Medicinal India
Rubber Porous Plasters.**

Packed two dozen in a box. Size, 5x7½ inches.

Aconite.....	per gross,	£ s. d.
Arnica.....	"	3 0 0
Belladonna.....	"	2 8 0
Capsicum.....	"	2 14 0
Iron.....	"	2 0 0
Opium.....	"	2 8 0
Poor Man's.....	"	3 12 0
Strengthening.....	"	2 8 0
Witch Hazel.....	"	1 10 0
	"	3 0 0

Special Formula made to order. A full line of Plain
Spread and Porous at same rates.**YARD ROLLS****Pharmacopoeia & Medicinal Plas-
ters, in Rubber Combination.**

Porous or Plain Spread, size, 7 in. wide by 1 yard long.

Aconite and Belladonna.....	per dozen,	£ s. d.
Belladonna.....	"	1 16 0
Blisters, Cantharidal.....	"	1 7 6
Capsicum.....	"	1 7 6
Mercurial.....	"	1 7 6
Opium.....	"	1 16 0
Pitch Burgundy.....	"	1 16 0
Roborans.....	"	1 7 6
T'hapsia.....	"	1 7 6
Warming.....	"	1 7 6

A full line, Plain and Porous.

BREAST PLASTERSBelladonna, Lead & Phytolacca Decandra,
SEPARATELY OR IN COMBINATION.One dozen in a box. 6 & 7 inches in diameter, Porous and
Plain Spread.**Mead's Adhesive Plaster,**
PLIABLE AND ANTISEPTIC.5 yd. rolls, 14 inches wide.....per 5 yd. roll, 5s. 0d.
1 yd. rolls, 7 inches wide.....per dozen, 14 0

May also be had in Spools, ½, 1, 2 and 3 inches wide.

Salicylated I. R. Adhesive Plaster,

Porous or Plain Spread, on Strong Cotton Cloth.

Yard Rolls, 7 inches wide.....per dozen, 17s. 0d.
5 yard Rolls, 7 inches wide.....per roll, 6 6May also be had in Spools, ½, 1, 2 and 3 inches wide,
AND**On Twilled Linen and Moleskin.****Corn and Bunion Plasters.**Mead's MEDICATED.....per dozen boxes, 8s. 0d.
Each box contains one dozen Plasters.Also a full line of Arnicated Corn and Bunion Plasters,
round, oval and Square, all styles, thick and thin; in Glass
Top Boxes, and containing each 1 gro. Corn or ½ gro. Bunion.**COURT PLASTER.**

40 different styles, elegant and Balsamic.

**Surgeons' Salicylated Isinglass
Plaster.**On fine, pure silk, "Flesh, White or Black."
7 inches wide, 1 yard long.....per dozen, £1 2s. 0d.

Also, on Tracing Cloth and Muslin.

Mustard Plasters,

Spread on Cotton Cloth.

Tins, containing 10 leaves.....	per dozen,	10s. 0d.
Envelopes, containing 6 leaves.....	"	6 0
Envelopes, containing 3 leaves.....	"	3 0
Yard Rolls, 6 inches wide.....	"	10 0
Half-yard Rolls, 6 inches wide.....	"	6 0

Antiseptics and Absorbents.A most extensive line, comprising Absorbent, Borated,
Carbolated and Salicylated Cottons; Hospital and Flax Lint;
Oil Silk and Muslin, Gutta Percha Tissue; Carbolated, Anti-
septic, Eucalyptus and Iodoform Gauze; Roller, Flannel
and Rubber Bandages, Catgut Ligature, and**Surgical Dressings of every description.****SPECIAL NOTICE.**Our New Catalogue of Specialties is ready for delivery, and contains a complete assort-
ment of our preparations. A copy will be sent to any Chemist on application to
Yours very truly,**SEABURY & JOHNSON, 1 and 2 Australian Avenue, London, E. C.**

QUALITY IS OF FIRST IMPORTANCE

GOLD MEDAL, VIENNA, 1883.

UMNEY'S

Made from Bark of Cinchona Succirubra, as grown in Government Plantations of British India.

At the Medical International Congress, London, the Indian Bark was declared to be the bark of the future.

Extensively used in Private and Hospital Practice, on account of its Elegance, Medicinal Value, Moderate Cost. See Opinions of the Medical and Pharmaceutical Press, and testimony as to its superiority over all other Fluid Preparations of Cinchona.

FLUID EXTRACT

OF

CINCHONA.

Price 10s. 6d. per lb.

To be obtained of all Druggists (Wholesale and Retail) in the United Kingdom.

IN ORDERING SPECIFY "UMNEY'S."

Lancet.—"An excellent preparation—contains all the alkaloids of the Bark."

Medical Times and Gazette.—"An excellent, elegant, reliable, and very convenient preparation."

Medical Press and Circular.—"Used in Hospital and private practice with the most satisfactory results."

Pharmaceutical Journal.—"Excellent preparation furnishing the constituents of the Bark in a concentrated form."

Chemist and Druggist.—"Pharmaceutically worthy of the valuable medicine which it represents."

WRIGHT, LAYMAN & UMNEY,
SOUTHWARK STREET; LONDON, S.E.

WRIGHT'S

See TESTIMONIALS of ENTIRE MEDICAL PRESS and from LEADING DERMATOLOGISTS.

origin to too slow a current of blood, of which the most typical example is that seen in Eczema connected with varicose veins of the leg—but to the same category also many examples of Pruritis Scroti, Labiorum and Ani may be referred—is best relieved by

LIQUOR

The *Practitioner*, of September, 1881, reports a lecture entitled, "Recent Advances in the Therapeutics of Diseases of the Skin," by W. A. JAMIESON, Esq., M.D., &c. The following is an abstract therefrom:—"Itching, which owes its careful flannel bandages, well applied suspensory bandages, and laxative salts or mineral waters, which unload the rectal veins by freeing the portal circulation, combined locally with weak tarry lotion, one of the best of which is Wright's Liquor Carbonis Detergens, a well-made alcoholic solution of Coal Tar, suitably diluted."

From the *Lancet*, Dec. 22nd, 1866:—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class; and one case psoriasis, which had resisted all other kinds of treatment, speedily got well under the application of the Liquor Carbonis Detergens. We esteem it a very valuable addition to our list of skin remedies."

From the *Medical Times and Gazette*, January 19th, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

CARBONIS

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies.

From the *British Medical Journal*, Sept. 22nd, 1871:—"We have tested it, and can affirm its value as a detergent agent. We consider the Liquor is an article of great utility."

Proprietors:

W. V. WRIGHT & CO.,
Southwark Street, London.

DETERGENS.

LEATH & ROSS'S HOMŒOPATHIC PHARMACIES

9 VERE STREET, W.,
And 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

ESTABLISHED 1835.

TRADE NOTICE—10 % Discount for Cash with Orders.

OUR £4 4s. AGENTS' CASE,

Contents realise £7 5s. 3d.



Upwards of 1,600 of these Cases have been sent out.
DIMENSIONS.—Length, 19 inches; breadth, 16 inches; height of front, 3½ inches;
height of back, including flap, 11 inches.

WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

	TO ACCOUNT.	FOR CASH.		TO ACCOUNT.	FOR CASH.
GLOBULES. —Sixpenny Tubes ...	3/0 doz.	2/9 doz.	PILULES. —Sixpenny Bottles ...	3/0 doz.	2/9 doz.
Ninepenny „ ...	4/6 „	4/1 „	Ninepenny „ ...	4/6 „	4/1 „
Shilling „ ...	6/0 „	5/5 „	Shilling „ ...	6/0 „	5/5 „
TINCTURES. —Sixpenny Bottles ...	3/0 „	2/9 „	TRITURATIONS. —Sixpenny Bottles	4/0 „	3/7 „
Ninepenny „ ...	4/6 „	4/1 „	Ninepenny „	4/6 „	4/1 „
Shilling „ ...	6/0 „	5/5 „	Shilling „	6/0 „	5/5 „

Liberal supply of printed matter to Agents, also Showcards, Transparencies, &c.

SEVEN HIGHEST AWARDS—Philadelphia, 1876; Paris, 1878; International Medical Exhibition, London, 1881.

"Greatly superior to the preparations in common use."—THE LANCET.

VASELINE SOAPS.

EMOLLIENT, ANTISEPTIC, HEALING.

Three Styles.	{	VASELINE, SUPERFINE TOILET,	One size, 1s. per tablet.
		VASELINE, FAMILY TOILET,	Two sizes, 6d. and 9d. per tablet.
		VASELINE TAR,	Two sizes, 6d. and 9d. per tablet.

The "VASELINE" TAR SOAP is the pleasantest and most effective combination of Tar for all Skin Diseases and Irritations, and a delightful Toilet article. The only genuine Tar Soap made.

The use of Lard, &c., as a basis for all ointments is now discarded by Medical Men, and "VASELINE" *only* is used for the purpose. "VASELINE," as is well known, possesses the most powerful inherent healing properties, is the best Emollient known to science, and will never become rancid: it is therefore the natural and only true basis for Soaps.

PREPARATIONS FOR MEDICINAL AND PHARMACEUTICAL USE.

"VASELINE" (PURE).	In 1-oz., 2-oz., and 5-oz. bottles, and in $\frac{1}{2}$ -lb., 1-lb., and 5-lb. tins.
"CAMPHORATED VASELINE."	In 2-oz. and 4-oz. bottles.
"CARBOLATED VASELINE."	" " and in 1-lb. tins.
"WHITE VASELINE."	In 1-lb. and 5-lb. tins.
"VASELINE CONFECTIONS."	In fancy tin box, one size, 1s. each.
"VETERINARY VASELINE."	In $\frac{1}{2}$ -lb., 1-lb., and 5-lb. tins.
"VASELINE OIL."	In 8-oz. bottles and 5-lb. tins.

FOR TOILET USE.

"POMADE VASELINE."	In 2-oz. and 5-oz. bottles. Also white in coloured glass-stoppered bottles.
"VASELINE HAIR TONIC."	One size, price 4s. each.
"VASELINE COLD CREAM."	In glass pots, 9d. and 2s.
"VASELINE CAMPHOR ICE."	In fancy tin box, one size, 6d. each.
"VASELINE TOILET SOAP."	As above, 6d., 9d. and 1s. tablets. Boxes of 6 and 3 tablets.
"VASELINE TAR SOAP."	" 6d. and 9d. tablets. " "

SUNDRY PREPARATIONS.

"VASELINE ANTI-CORROSIVE PASTE."	One size, tin box, 6d. each.
"VASELINE BOOT PASTE."	" " "
"VASELINE HARNESS PASTE."	In 1-lb. tins, 1s. 6d.
"VASELINE AXLE PASTE."	" "
"VASELINE" (PURE).	In Metal Collapsible Cases, for Bicyclists and Sportsmen's Use. 6d. each.

NOTICE.—The above only Genuine in our Packages. The BOTTLED GOODS are put up in Cardboard Cases.

MANUFACTURED ONLY BY THE

CHESEBROUGH MANUFACTURING CO.
(NEW YORK)

41 HOLBORN VIADUCT, LONDON, E.C.

REGISTERED TRADE MARKS.

FRAD! **COBDEN'S** **QUININE AND PHOSPHORUS PILLS.**

THE SUSSEX DRUG COMPANY regret to have to give notice that the great success these Pills have achieved has induced a piracy of them. They publish below copies of each genuine and each forged label, and remarks pointing out the most salient distinctions. Any Dealers or Chemists who may have any of the spurious Pills in their possession are requested to at once return them for exchange.

GENUINE.

$\frac{1}{2}$ Dozen.

COBDEN'S

QUININE AND PHOSPHORUS

PILLS.

2s. 9d. SIZE.

On the genuine labels the words " $\frac{1}{2}$ Dozen" are lower from the top than on the forged.
On the genuine labels the words "Quinine and Phosphorus" are in thicker type than on the forged.
On the genuine labels the word "Pills" is in smaller type than on the forged;
On the genuine labels the words "2s. 9d. Size" are larger than on the forged.

GENUINE.

COBDEN'S

TASTELESS

QUININE

AND

PHOSPHORUS

PILLS.

PRICE 2s. 0d.

The border of the genuine is thinner than that of the forged.
The word "Cobden's" on the genuine is lower from the top than on the forged.
The word "Tasteless" on the genuine is smaller than on the forged.
The word "Quinine" is more squat on the genuine than on the forged; notice particularly the "Q."
The word "Phosphorus" on the genuine is larger than on the forged.
The word "Pills" is more squat on the genuine than on the forged.

$\frac{1}{2}$ Dozen.

COBDEN'S

QUININE AND PHOSPHORUS

PILLS.

2s. 9d. SIZE.

On the genuine labels the words " $\frac{1}{2}$ Dozen" are lower from the top than on the forged.
On the genuine labels the words "Quinine and Phosphorus" are in thicker type than on the forged.
On the genuine labels the word "Pills" is in smaller type than on the forged;
On the genuine labels the words "2s. 9d. Size" are larger than on the forged.

GENUINE.

COBDEN'S

QUININE & PHOSPHORUS

PILLS.

Dose - One daily, directly after the principal meal.
THE 2/9 BOTTLES CONTAIN 20 PILLS & THE 4/6 40 PILLS.

Sussex Drug Company,
135, QUEEN'S ROAD,
BRIGHTON.

The words "Quinine & Phosphorus" on the genuine are larger than on the forged.
The words "Dose, One daily, directly," &c., are in quite different type on the forged.
The words "The 2/9 Bottles contain," &c., are larger on the genuine than on the forged.

The words "Sussex Drug Company" are larger on the genuine than on the forged.

FORGED.

COBDEN'S

QUININE & PHOSPHORUS

PILLS.

Dose - One daily, directly after the principal meal.
THE 2/9 BOTTLES CONTAIN 20 PILLS & THE 4/6 40 PILLS.

Sussex Drug Company,
135, QUEEN'S ROAD,
BRIGHTON.

**INTERNATIONAL
PHARMACEUTICAL EXHIBITION,
VIENNA, 1883.**

**A
SILVER MEDAL**

HAS BEEN AWARDED TO

Fletchers' Concentrated Liquors

In Group V. Section B.

"For the most useful contributions to Pharmacy."

FLETCHERS' Concentrated Liquors are the *original* and *only reliable* preparations, and Pharmacists are respectfully cautioned against *inferior Substitutes*.

Sole Manufacturers:

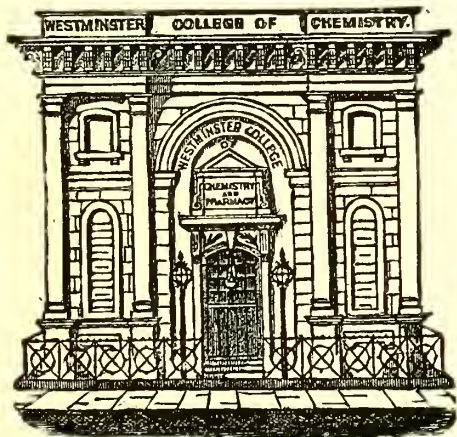
**FLETCHER, FLETCHER & STEVENSON,
Holloway, London, N.**

LITERARY AND SCIENTIFIC. WORKS FOR CHEMISTS AND STUDENTS.

- INCE'S LATIN GRAMMAR OF PHARMACY.** Second Edition now ready. Price 4s.
For the use of Medical and Pharmaceutical Students; with an Essay on the Reading of Latin Prescriptions. By JOSEPH INCE, F.C.S.
F.L.S., A.K.C. Lond., formerly Examiner and Member of Council of the Pharmaceutical Society of Great Britain.
- GRIFFITH'S TEXT-BOOK OF MATERIA MEDICA AND PHARMACY.** Price 9s.
By Dr. HANSEL GRIFFITH and Dr. G. F. DUFFEY, Examiner in Materia Medica and Therapeutics, Queen's University.
"The ablest and the best work on the subject in the English language."—*Medical Press and Circular*.
- GRIFFITH'S NOTES ON THE PHARMACOPŒIAL PREPARATIONS.** 3s. 6d.
"Simply invaluable to the Pharmaceutical Student."—*Chemist and Druggist*.
- GRIFFITH'S POSOLOGICAL TABLES.** Fourth Edition. Price 1s.; or on linen, with rollers, 3s. 6d.
A Classified Chart of Doses, showing at a glance the dose of every Official Substance and Preparation.
- WILLSON'S CHEMICAL NOTES FOR PHARMACEUTICAL STUDENTS.** 2s. 6d.
"The book is one of a very useful and original kind, and quite up to date."—*Chemical News*.
- EXAMINATION QUESTIONS ON THE MEDICAL SCIENCES.** Second Edition. 2s. 6d.
By J. GREIG LEASK, M.B. Contains the Questions set at all the Examining Boards in the United Kingdom, as well as those for the Army, Navy, and Indian Medical Services.
- THE MINERAL WATERS OF EUROPE.** Price 3s. 6d.
Analytical Reports on all the Bottled Waters. By Professor TICHBORNE, F.C.S., LL.D., President of the Pharmaceutical Society of Ireland; with their Therapeutical Values and Uses, by Dr. PROSSER JAMES, M.R.C.P. Lond., Lecturer on Therapeutics, London Hospital.
Send for Catalogue, post free.

London: BAILLIÈRE, TINDALL & COX, 20 King William Street, Strand, and all Booksellers.

WESTMINSTER COLLEGE



The next Course will commence on Monday,
October 29th.

FEES:—	
To the De cember Examination	£5 5s.
To the February	£8 8s.
Six Months' Course	£10 10s.
Twelve Months' Course	£15 15s.

Any diligent Student, with ordinary ability, who is punctual in his attendance at the Lectures and Classes, may rely upon passing his Examination at the FIRST ATTEMPT.

For Prospectuses and other information apply to

Messrs. WILLS & WOOTTON,
TRINITY SQUARE, LONDON, S. E.

**3d. In the Shilling Discount
for Cash with Order.**

Books sent to any of the Wholesale Houses for enclosure.

HENRY KIMPTON, Chemical and Scientific Bookseller and
Publisher, 82 High Holborn, London, W.C.

New Catalogue One Stamp. To the Pharmaceutical Society of Great Britain

WORKS BY DR. DOBELL,

Consulting Physician (late Senior Physician) to the Royal
Hospital for Diseases of the Chest, &c.

"We should be at a loss to name anyone in Great Britain whose works repay earnest study more richly than those of Dr. Dobell."—*Medical and Surgical Reporter, Philadelphia*.

**ON Loss of Weight, Blood-Spitting, and Lung
DISEASE.** To which is now added Part VI., on the
FUNCTIONS and DISORDERS of the LIVER, and their
Management in accordance with the Results of Modern Dis-
covery Second Edition. Coloured Plate.

Affections of the Heart and in its Neighbourhood.
Cases, Aphorisms, and Commentaries. Illustrated. Se-
cond issue.

**On Winter Cough, Catarrh, Bronchitis, Emphysema,
ASTHMA.** Coloured Plates. Third Edition, with Notes
on Climate.

**On Diet and Regimen in Sickness and Health, and
on the Interdependence and Prevention of Diseases, and the
Diminution of their Fatality.** Seventh Edition. Enlarged.

On the Mont Dore Cure, and the proper way to use it.

**Report on the Use of Pancreatic Emulsion and Pan-
CREATINE,** as first introduced into Medical Practice by
Dr. Dobell in 1863.

A descriptive Catalogue of Dr. Dobell's Works, with Prices, Lists of
Illustrations, Opinions of the Press, and the Table of Contents of each
volume, on application at LEWIS'S LIBRARY, 136 Gower St., London, W.C.

EDINBURGH PHARMACEUTICAL CLASSES.

DAY and EVENING CLASSES for PHARMACEUTICAL
STUDENTS are conducted in the Classrooms and
Laboratories, 41 Chambers Street, Edinburgh.

CHEMISTRY (Lectures { Dr. DRINKWATER, F.C.S.
and Laboratory) ... { Lecturer Ed. Sch. of Medicine.

BOTANY ... { Dr. J. M. MACFARLANE,
Royal Botanic Gardens.

Arrangements are in course of completion for a Course of
Lectures on Materia Medica and Pharmacy.

INSTRUCTION BY CORRESPONDENCE.

For all particulars apply to Dr. DRINKWATER, Chemical
Laboratory, 41 Chambers Street, Edinburgh.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY

Of the Pharmaceutical Society of Great Britain.

Chemistry and Pharmacy, Prof. REDWOOD, F.I.C., &c. Botany and Materia Medica, Prof. BENTLEY, F.L.S., &c.
Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.

FORTY-FIRST SESSION 1883-84, extending from October 1 to July 31.

Application for admission to the School, for Prospectuses, or for further information, may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.

THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,

173 MARYLEBONE ROAD (OPPOSITE LISSON GROVE), N.W.

DIRECTORS - - - MESSRS. LUFF & WOODLAND.

Teacher of Chemistry and Physics, Mr. A. P. LUFF, F.C.S., F.L.S., Pereira Medallist, &c.
Teacher of Pharmacy, Botany, Materia Medica, &c., Mr. J. WOODLAND, F.C.S., F.L.S., M.P.S., &c.

"SYSTEMA OMNIA VINCIT."

SOUTH LONDON SCHOOL of PHARMACY,

325 KENNINGTON ROAD, S.E.

Director: Dr. JOHN MUTER, M.A., F.I.C., F.C.S., &c.

FIFTEENTH SESSION, 1883-84.

Commenced on 10th September. For Fees, Syllabus, &c., apply to W. BAXTER, Secretary.

THE LONDON HOMOEOPATHIC HOSPITAL AND MEDICAL SCHOOL,
Great Ormond Street, Bloomsbury. Unendowed. Seventy Beds. Funds urgently needed. Trained Nurses sent out to attend private patients.
For further information apply to the Hospital. By order,
G. A. CROSS, Secretary.

"CONCILIO ET LABORE."

THE MANCHESTER COLLEGE OF PHARMACY,
225 OXFORD STREET, MANCHESTER.
Mr. W. S. TURNER, Pharm. Chemist, M.P.S.

TABLE OF CLASSES AND FEES.

	Fee, per Month.
I.—Day Class for Minor	£3 3 0
II.—Afternoon Class for Minor	1 1 0
III.—Evening Class for Minor	1 1 0
IV.—Afternoon Class for Preliminary	1 1 0

Full particulars on application.

THE GRAMMAR SCHOOL, HINGHAM, NORFOLK.
Head Master ... Mr. J. S. TURNER.

Now conducted under New Scheme approved by Charity Commissioners.
President of Board of Governors—The Right Hon. the Earl of Kimberley.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 6d. Latin Grammar and Caesar Simplified, 1s. Minor—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Minor Questions, gratis. Notes on Dispensing, 1s. Prescriptions given at the Minor, 1s. For "How to Prepare for either Exam.," enclose stamped envelope, "Chemist," care of Mr. J. EDWARDS, Wye, Kent.

TULLY'S POSTAL TEACHING,
For the Minor, Modified, and Preliminary,

WAS established in 1872, and notwithstanding many imitations, continues to hold its prestige as the best and most successful method ever offered to Students for obtaining that thorough knowledge necessary to qualify for Examination, without leaving home. Every Student desiring to ensure success should study under this system. Fees: Minor or Modified, One Guinea; Preliminary, 10s. 6d. Send for particulars to

Mr. J. TULLY (Hills Prizeman),
Chemist, TUNBRIDGE WELLS.

OWENS COLLEGE, MANCHESTER.

COURSE IN PHARMACY.

Chemistry—Prof. H. E. ROSCOE, Ph.D., LL.D., F.R.S.;
Prof. C. SCHORLEMMER, F.R.S.

Botany—Prof. W. C. WILLIAMSON, LL.D., F.R.S.

Materia Medica and Pharmacognosy—Prof. D. J. LEECH, M.D.,
F.R.C.P.; and Mr. W. ELBORNE.

Pharmaceutical Chemistry and Pharmacy—Mr. W. ELBORNE.

Courses of Lectures adapted to the requirements of Pharmaceutical Students will be delivered during the Session 1883-4, commencing October 15th. Prospectuses will be forwarded on application.

J. HOLME NICHOLSON, Registrar.

ROYAL COLLEGE OF SCIENCE FOR IRELAND, STEPHEN'S GREEN, DUBLIN.

SCIENTIFIC AND TECHNICAL EDUCATION. SESSION 1883-84.

This College supplies a complete Course of Instruction in Science, as applied to the Industrial Arts, especially those which may be classed broadly under the heads of CHEMICAL MANUFACTURES, MINING, and ENGINEERING.

A Diploma of Associate of the College is granted at the end of the Three Years' Course.

There are Four Royal Scholarships, tenable for two years, each of the value of £50 yearly, with free education, including Laboratory Instruction. Two become vacant each year. They are given to Students who have been a year in the College.

The Fees are £2 for each Course, or £10 for all the Courses of each year, with the exception of Laboratory Practice.

CHEMISTRY (THEORETICAL AND PRACTICAL), METALLURGY, &c.—Professor HARTLEY, F.C.S., F.R.S.E.

MATHEMATICS, MECHANICS, AND MECHANISM—Professor HENNESSY, F.R.S., M.R.I.A.

DESCRIPTIVE GEOMETRY, DRAWING, ENGINEERING, AND SURVEYING—Professor PIGOT, C.E., M.R.I.A., Dean of Faculty.

EXPERIMENTAL PHYSICS (THEORETICAL AND PRACTICAL)—Professor BARRETT, F.R.S.E., M.R.I.A.

MINING AND MINERALOGY—Professor O'REILLY, C.E., M.R.I.A.

BOTANY—Professor McNAB, M.D., F.L.S.

ZOOLOGY—Professor HADDON, M.A., F.Z.S.

GEOLOGY—Professor HULL, M.A., LL.D., F.R.S.

PALAEONTOLOGY—Mr. BAILY, F.L.S., F.G.S., M.R.I.A.

The Chemical and Physical Laboratories and Drawing School are open daily for Practical Instruction.

Fee for Chemical Laboratory, £2 for One Month, £5 for Three Months, £9 for Six Months, or £12 for Session. Fee for Physical Laboratory, £1 per Month, or £6 for Session. Fee for Special Course of applied Electricity, and Laboratory, £4. Fee for Biological Laboratory, £2 for the term. Fee for Drawing School, £3 for Session, or £2 for one term.

The SESSION COMMENCES on MONDAY, OCTOBER 1st.

Programmes may be obtained on application at the College, or by letter addressed to the Secretary, Royal College of Science, Stephen's Green, Dublin.

Professor J. P. O'REILLY, Secretary *pro tem*.

Sixth Edition. 2 vols. 8vo, £2 2s.

COOLEY'S CYCLOPÆDIA OF PRACTICAL RECEIPTS

AND COLLATERAL INFORMATION IN THE ARTS, MANUFACTURES, PROFESSIONS, AND TRADES, Including MEDICINE, PHARMACY, DOMESTIC ECONOMY, and HYGIENE; designed as a Comprehensive Supplement to the Pharmacopœia and General Book of Reference for the Manufacturer, Tradesman, and Head of a Family.

Edited by Prof. TUSON, F.I.C., F.C.S., assisted by several Scientific Contributors.

LONDON: J. & A. CHURCHILL, 11 NEW BURLINGTON STREET.

Now ready, Second Edition, Revised and Enlarged, with 44 Wood Engravings and 32 Lithograph Facsimile Prescriptions. 8vo, 14s.

LECTURES ON PRACTICAL PHARMACY.

By BARNARD S. PROCTOR, formerly Lecturer on Pharmacy in the College of Medicine, Newcastle-on-Tyne.

"Mr. Proctor's lectures have won a high repute for their clearness and scientific spirit."—*The Practitioner*.

"It presents in readable style the experience of an accomplished pharmacist on the topics which come daily before every chemist and druggist, his assistant, or his apprentice."—*Chemist and Druggist*.

LONDON: J. & A. CHURCHILL, 11 NEW BURLINGTON STREET.

NEW EDITION OF "BEASLEY'S PRESCRIPTIONS."

Sixth Edition, much Enlarged. 8vo, 6s. 6d.

THE BOOK OF PRESCRIPTIONS:

Containing upwards of 3,000 Prescriptions, collected from the Practice of the most eminent Physicians and Surgeons, English and Foreign; comprising also a compendious History of the Materia Medica, Lists of the Doses of all Official or Established Preparations, and an Index of Diseases and Remedies.

* * The whole of the work has been revised, and its information corrected and augmented to the present time. All the prescriptions have been carefully examined and, where necessary, tested.

BY THE SAME AUTHOR.

Eighth Edition. 18mo, 6s. 6d.

THE DRUGGIST'S GENERAL RECEIPT BOOK; comprising a Copious Veterinary Formulary, numerous Recipes in Patent and Proprietary Medicines, Druggists' Nostrums, &c.; Perfumery and Cosmetics; Beverages, Dietetic Articles and Condiments; Trade Chemicals, Scientific Processes, and an Appendix of Useful Tables.

Tenth Edition. 18mo, 6s. 6d.

THE POCKET FORMULARY AND SYNOPSIS OF THE BRITISH AND FOREIGN PHARMACOPŒIAS: comprising Standard and Approved Formulæ for the Preparations and Compounds employed in Medical Practice.

LONDON: J. & A. CHURCHILL, 11 NEW BURLINGTON STREET.

CHEMICAL AND SCIENTIFIC APPARATUS.**J. ORME & CO.**

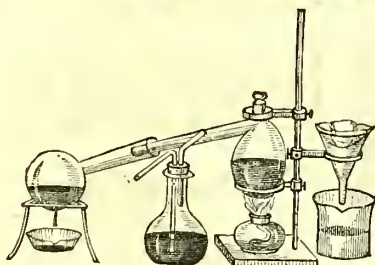
(Late M. JACKSON & CO.),

Manufacturers and Importers of every description of Apparatus for Lecturers or Laboratory use.

By Appointment to H.M. Hon. Board of Inland Revenue, Science and Art Department, Royal School of Mines, Trinity House, Pharmaceutical Society, &c.

ILLUSTRATED PRICE LISTS ON APPLICATION.

65 BARBICAN, LONDON, E.C.



Now Ready, a Companion to the Latest Edition of the British

HOMŒOPATHIC PHARMACOPŒIA.

SECOND EDITION, REVISED AND ENLARGED.

The first edition of the above work was sold in less than twelve months. Great care has been taken to insert every information necessary for the preparation of Homœopathic Medicines, and all the official processes of the *British Homœopathic Pharmacopœia* of 1882 (third edition) are given, besides directions for making medicines on the American plan. The chemist wishing for information on the subject should buy this work, for he will be able to become his own manufacturer, and in any case will derive much information concerning new remedies, both British and American, of which a host are added.

Free by **3/6** Post.

Published by KEENE & ASHWELL, Manufacturing Homœopathic Chemists,
74 NEW BOND STREET, LONDON.

PRICE LISTS OF MEDICINES ON APPLICATION.

ALMANACKS FOR LOCALISING, 1884

CASSELL & COMPANY, Limited,

BEG to announce that their CROWN 8vo. ALMANACKS for 1884, specially prepared for the purpose of *Localising*, are now ready. Specimens and particulars will be forwarded on application. They consist of:—

1. GENERAL ILLUSTRATED ALMANACK for 1884—15 Illustrations.
2. PICTORIAL ALMANACK for 1884—8 Full-page Illustrations, printed on toned paper.
3. LETTERPRESS ALMANACK for 1884—containing Anecdotes, &c.
4. COMMERCIAL ALMANACK and DIARY for 1884—12 Illustrations.
5. DOMESTIC and WEATHER ALMANACK for 1884—24 Illustrations.

A LITERARY COMPANION to the Almanacks.

Also, uniform with the above,

A HUMOROUS COMPANION, containing 20 Comic Illustrations.

A 12-Page DIARY, ruled for Cash.

ILLUMINATED COVERS for Crown 8vo. Almanacks, printed in Three Colours.

La Belle Sauvage Yard, Ludgate Hill, London, E.C.

See "Trade Notes," CHEMIST AND DRUGGIST, October 14th, 1882, p. 456.

NOW READY. Send Stamp for Sample and Particulars. *See See See*

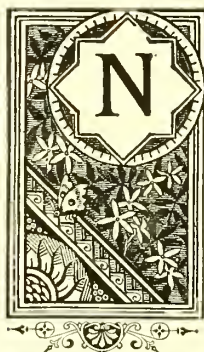
Davis's Toilet Almanac, 1884.

Title Registered. Ent. Sta. Hall. Fifteenth Year of Publication.

BEST VALUE FOR MONEY IN THE MARKET.
HIGHLY APPRECIATED. NUMEROUS TESTIMONIALS.

J. DAVIS, Medical & Commercial Printer,

Steam Works—201, OLD KENT ROAD, LONDON, S.E.



PRICE FIVE SHILLINGS. **THE CHEMISTS' AND DISPENSERS' VADE MECUM**, Medical, Chemical, and General; or Things Worth Knowing, in Pharmacy, Chemistry, Materia Medica, and Therapeutics, to which is appended a Key to Dispensing Difficulties, and other practical and useful information. Compiled from the latest and best Authorities, by W. CANNING. To be ordered through J. DAVIS, Printer, Steam Works, 201, Old Kent Road, London, S.E.

KIRKES' PHYSIOLOGY.

Tenth Edition, revised, with 420 Illustrations, post 8vo., 14s.

KIRKES' HANDBOOK OF PHYSIOLOGY.

By W. MORRANT BAKER, F.R.C.S., Lecturer on Physiology and Surgeon to St. Bartholomew's Hospital, and Surgeon to the Evelina Hospital for Sick Children.

The Chapter on the Chemical Composition of the Human Body has been in great part re-written; and the text has been much altered in many others, especially the Chapters on the Blood, Circulation, Respiration, Digestion, and the Nervous System.

About 60 new Illustrations have been added.

JOHN MURRAY, Albemarle Street.

PRACTICAL PHARMACY, MATERIA MEDICA AND THERAPEUTICS.

A MANUAL containing sections on Compounding, Dispensing, Prescription writing and reading, Latin abbreviations, Litographed Recipes (parsed and translated), strengths, solubilities, doses, combinations of all the P.B. Drugs, and a notice of the more important new ones, with Formulae, &c. By W. WHITLA, M.D., Consulting Physician to the Ulster Hospital for Women.

"Should be in the hands of every Chemist."

LONDON: H. RENSHAW, 356 STRAND. 8vo. 10s. 6d.

EDINBURGH SCHOOL OF PHARMACY AND CHEMISTRY, MARSHALL STREET, NICOLSON SQUARE.

The Sessions open at this School in January, May, and October. ONE Session's Attendance has hitherto been found sufficient to secure success. For particulars apply to—

R. URQUHART, Sec.

Silverlock's NOW READY.

SACHET, PRESENTATION, AND CARD

Almanacks, FOR 1884.

Samples
Post Free.

II. SILVERLOCK, 92, BLACKFRIARS ROAD, LONDON. S.E.

CHEAP EDITION. JUST PUBLISHED. 1s.

THE MOTHER'S GUIDE IN THE MANAGEMENT AND FEEDING OF INFANTS.

By JOHN M. KEATING, M.D., Lecturer on the Diseases of Children at the University of Penna, &c., &c.
Second Edition. Revised and Enlarged, by C. E. ARMAND SEMPLE, M.B., Cantab., M.R.C.P., Lond., &c., Physician to the North Eastern Hospital for Children, &c.

"On the whole this is a good book. There is the ring of common sense in the remarks about the employment of a wet nurse, about the proper food for a nursing mother, about the tonic effect of a bath, about the perambulator *versus* the nurse's arms, and on many other subjects concerning which the critic might say, 'surely this is obvious,' but which experience teaches us are exactly the things needed to be insisted upon with the rich as well as the poor. The chapter on the subject of Cow's Milk is excellent. Dr. Keating has well stated the difficulties and dangers which beset the subject. On the question of condensed milk, as on others, he speaks evidently from the result of personal knowledge."—*Lancet*.
"Grave objections exist against the mothers' books in ordinary circulation, and hence we hail with genuine pleasure the appearance of a volume which, in a small compass, includes all that a woman need know concerning the management, treatment, and feeding of infants. But Dr. Keating has accomplished even more than this, for many a young practitioner will find in this unpretending little handbook a fund of information of the most valuable kind to assist him in successfully passing that trying ordeal of experience—a mother's questions regarding her child."—*Medical News*.

Chemists will find a ready sale for this book by showing it on their counters, and make a good profit. On receipt of P.O.O. for 2/- I will forward 3 Copies, or 13 for 8/. Single Copy One Shilling Post Free.

HENRY KIMPTON, 82 HIGH HOLBORN.

F. DARTON & CO.,

Established
1834.

45 ST. JOHN STREET, WEST SMITHFIELD.

Established
1834.

DARTON'S

IMPROVED IMPERISHABLE

Index Clinical Thermometers,

As noticed in the *Lancet*, *Chemist and Druggist*, &c., can be obtained only of the Inventors and Makers; cannot get out of order, and are therefore specially suited for Export.

PLAIN CLINICAL THERMOMETERS,

4 or 6 in., in case, 4s. each.

4 in. ditto, contracted in Ebony, G. S. or Celluloid Case, 4/6 each.

6 in. ditto, Ebony or Boxwood Case, 4/6 each.

DARTON'S IMPROVED DITTO, IMPERISHABLE INDEX, 4 or 5 in., 6/ each.

Ditto, Enlarged and Magnified Bore, 7/ each.

One Bent and One Straight 6-inch Clinical Thermometer, in Morocco Snap Case, 10/6 the set.

If divided in Centigrade Scale, same price.

Kew Certificates, 1/3 each extra.

BATH THERMOMETERS, Japanned Tin Cases, Silvered Metal Scales, 8 inches long, 12/ per dozen.

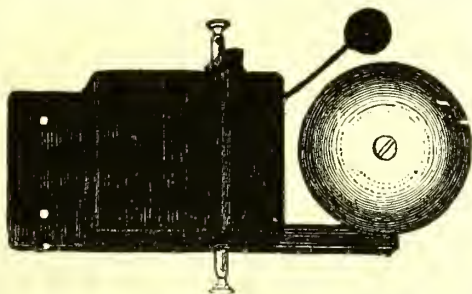
Ditto, Enamelled Tubes, with Dr. Forbes' Specifications, 15/6.

Ebonized Thermometers, with Enamelled Mercury Tubes, 4/6 per dozen.

SPECIAL PRICES FOR LARGE ORDERS.

All kinds of Thermometers and Barometers made to Order.
A large Selection always in stock.

ELECTRIC BELLS.



New Form Metal Frame Electric Bell, with 2½ Patent Dome, 5/6 each. Complete, with Large Battery, Push Piece and Wire, and Instructions for Fixing, 10/6.

Invalids' Electric Bell Set, with Bell and Battery in Polished Case, 30 feet of Flexible Line Wire, and Pear Push, 21/ each.

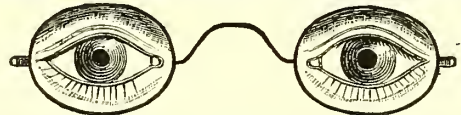
Estimates given for Fitting up Houses or Shops.

MAGNETO ELECTRIC MACHINES,

In Pine Cases, from 10/6 each.

New Illustrated Price List of Electric Bells and Fittings sent, post free, on application.

SPECTACLES.



Iron Frames, Convex Glasses, Assorted Sights.

Common, 21/ per gross. Better ditto, 24/ and 33/ per gross.

Cases for ditto, 12/ per gross.

Steel Frames—Common, 4/6 & 6/ per doz. Better Quality, 10/ per doz.

Ditto, fitted with Neutral Tint Glasses, 12/ per dozen.

Large Eye, Best Quality Frames, and Best Neutral Tint Glasses, 30/ doz.

Ditto Light Ball-Joint Frames, 18/ per dozen.

Ditto Light Screw Frames, Grooved Glasses, 24/ per dozen.

Ditto Extra Light Frames, Best White Glasses, 36/ per dozen.

Pantoscopic ditto, with Polished Edge Glasses, 36/ per dozen.

Steel Frames, with Convex Pebbles, 27/ per dozen.

Ditto Better Quality Frames, 42/ per dozen.

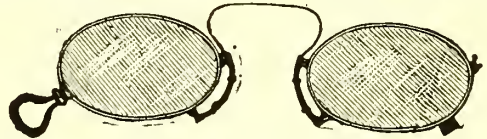
Ditto Best Pebbles, 48/ per dozen.

Ditto Extra Light Frames and Best Pebbles, 60/ per dozen.

Globular Spectacles, Neutral Tint, Domed Glasses, 7/6 per dozen.

Ditto Stout English, 30/ per dozen.

D EYE SPECTACLES, Neutral Tint Glasses, Best Quality, 48/ per [dozen].



Common Steel Folders, 4/6 per dozen.

Steel, 8/ and 7/6 per dozen.

Ditto, with Shell Nose Pieces, 10/6 per dozen.

Ditto Grooved Glasses, Light Frame, 15/6 per dozen.

Ditto Nickel Plated, Grooved, Extra Light, 24/ per dozen.

Ditto Best Fancy Handiel, 42/ per dozen.

Nickel Plated Folders, Coloured Glass, 36/ per dozen.

Tortoiseshell ditto, Convex Glasses, 30/ per dozen.

New Pattern Gold Cased Japanese Folders, will wear like gold, 60/ per [dozen].

SKELETON FOLDERS

from 8/6 per dozen.

Nickel Plated Japanese

Folders, with Domed

Glasses, Best Finish,

Blue and Neutral

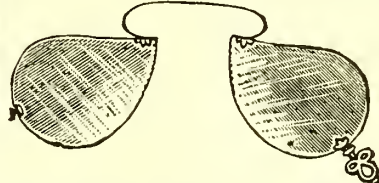
Tint, 30/ per dozen.

Gold Spectacles, from

11/ per pair.

Gold Folders, from 13/

per pair.



Tuck Cases, 14/ per gross.

Ditto, all Leather, 30/ per gross.

Ditto, best Morocco, 48/ per gross.

French Frog Mouth Cases, 4/6, 6/, and 8/ per dozen.

EYE-GLASS CORDS, Black Silk, 7/6 per gross. Ditto, Best Quality, 10/6

per gross. Ditto, with Ball and Swivel, 24/ per gross.

UNBREAKABLE GILT CORD, 3/ per dozen yards.

AMERICAN AUTOMATIC EYE-GLASS CORDS, with Spring and

Swivel, 7/6 per dozen.

Single articles cannot be supplied at these prices.

For the convenience of Customers who have not yet started the Sale of Spectacles, we fit up Show Cases, containing an assortment of Spectacles, complete with Sight Tester and Instructions, as follows:—



Our £2 2s. SHOW CASE for the Counter, in Polished Mahogany, contains

4 dozen Spectacles, Sight Tester, and Instructions for suiting sight.

Our £3 3s. CASE contains, in addition, 2 dozen Folders and 2 dozen Cases.

Larger sized Cases, in Polished Mahogany or Ebonised, with an assortment

of superior quality Spectacles, Folders, and Cases, £6 6s. and £10 10s.

Ditto, with assortment of Best Pebble Spectacles and Folders, £21.

New Illustrated Price List of Spectacles and Folders, with Trade Terms, on application.



MAY BE HAD ON APPLICATION,
ENCLOSING BUSINESS CARD,



S. Maw, Son & Thompson's

QUARTERLY PRICE CURRENT

AND

BOOK OF ILLUSTRATIONS

OF

Surgeons' Instruments and Appliances;

INSTRUMENTS, &c., FOR VETERINARY PURPOSES;

Druggists' Apparatus, Implements, Utensils,

And other requisites employed in Pharmacy and the Dispensing of Medicines;

MEDICAL GLASS AND EARTHENWARE; MEDICINE CHESTS;

Shop Fittings and Glass Show-Cases;

LINT AND SPREAD PLASTERS;

Flesh Brushes, Gloves, Rubbers, &c.,

HAIR, TOOTH, AND NAIL BRUSHES;

TOILET AND SMELLING BOTTLES, FEEDING BOTTLES;

Proprietary Articles, Perfumery, and

DRUGGISTS' SUNDRIES OF ALL KINDS.

MANUFACTURED AND SOLD BY

S. MAW, SON & THOMPSON,
ALDERSGATE STREET, LONDON.

Forwarded, Post Free, to all parts of the World.



THE ONLY PALATABLE APERIENT NATURAL MINERAL WATER.

TO EVERY CHEMIST,

SIR.—The large and increasing demand for Æsculap, while proof of its superiority and the favour in which it is held by the Medical Profession, is, in the estimation of the Proprietors, largely due to the support which has been everywhere accorded to it by the Chemists.

In recognition of this encouragement, my Directors have determined to cultivate your custom to the utmost of their ability, and to confine the sale of the Water as much as possible to the proper trade channels—namely, the Chemists.

I am instructed, therefore, to inform you that permission having been obtained to print and circulate a PAMPHLET on "The Nature and Uses of Æsculap," copies of the same, together with 1,000 CIRCULARS (a good, large, useful counter bill) with your name printed at foot, will be supplied to you on application, free of charge, together with TRANSPARENCIES and SHOW CARDS, and forwarded to you direct or through any Wholesale House, for enclosure.

At foot I subjoin prices at which Æsculap can be obtained direct, or from any of the Wholesale Druggists and Dealers.

Awaiting the favour of your reply, I remain, your obedient Servant, **E. SAMSON, Manager.**

N.B.—I shall be glad to receive any suggestions from you with a view to promoting the sale of Æsculap in your neighbourhood to our mutual advantage.

PINTS, Retail, 1/6; for Cases of 50 Bottles, 50/- net. QUARTS, Retail, 2/-; for Cases of 25 Bottles, 30/- net.
On lots of Ten Cases carriage will be paid, and a discount of 10 per cent. allowed.

ÆSCULAP is now prescribed by all the leading Medical Men, in preference to all other Waters.

ÆSCULAP will continue to be largely advertised all over the world.

ÆSCULAP is acknowledged by everybody to be the best Natural Aperient Water.

Every Bottle direct from the Celebrated Spring in Hungary. Retail Price, 1/6 and 2/- each.

THE ÆSCULAP BITTER WATER CO., LIMITED, 38 SNOW HILL, HOLBORN VIADUCT, LONDON, E.C.

THE CHEMISTS' BALL.

A MEETING will be held, by permission, at 17 BLOOMSBURY SQUARE, on Monday Evening, November 5, 1883, at 9 P.M., for the purpose of making Preliminary Arrangements for the ensuing Ball. Any gentleman desirous of becoming a Steward, and unable to be present, will oblige by informing the Honorary Secretary of such his intention without delay.

143 New Bond Street, W.

JOHN F. SAVORY, Hon. Sec.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopœia.



Per lb.		Per lb.		Per lb.		Per lb.	
Aqua Anethi, Concent.	4/0	AquaCinnam. Ver. Concent.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
" Anisi "	4/0	" Cassiæ "	4/0	" Mentli. Pip. "	4/0	" Rosæ "	8/6
" Camphoræ "	4/0	" Flor. Aurant. "	8/6	" " Ang. Con. "	6/0	" Rosæ Virgin "	10/6
" Carui "	4/0	" Flor. Sambuci, "	8/6	" Virid. "	4/0		

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearson & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Raimes & Co., Duncan Flockhart & Co., J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggitt, Thirsk; Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

PURE CRUSHED LINSEED,



CONTAINING ALL THE OIL.

GUARANTEED FREE FROM ANY OTHER SEEDS.
NOTHING FINER CAN BE OBTAINED.

In free 1-cwt. bags, 18/6 cwt. Special quotations for 5 cwt. and upwards.

W. KEMP & SON,
Seed Crushers and Merchants, **HORNCASTLE.**



Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal, Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal, Frankfort, 1881.



BROWN'S SATIN POLISH

Put on by Sponge attached to Wire and Cork in each Bottle. No Polishing Brush required. Dries in a few minutes. Can be used by any lady without soiling her fingers.

The "Satin Polish" is the most Elegant Article of the kind ever produced. LADIES' SHOES, which have become Red and Rough by wearing, are restored to their ORIGINAL COLOUR and LUSTRE, and will not soil the skirts when wet. TARNISHED PATENT LEATHER is improved by it.



For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not harden the Leather nor crack. It is not a spirit varnish. In Cartons, 4s. 6d. per dozen; 52s. per gross. Packed in Sawdust, 3s. 9d. per doz.; 43s. per gross. 2 1/2 %.

AMERICAN MAGIC BRONZE

Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frames, Iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 2 1/2 %.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN

Factories: BOSTON MONTREAL 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

"COAGULINE" TRADE MARK.

Kay's New Transparent Cement for Broken Articles.
"Clear as Crystal," "Stronger than Glass," "Tough as Leather," 6d., 1s., 2s., in Boxes or on Cards. Showcards, Handbills, with name, &c., Specimens, &c., for home or export, free.

KAY'S COMPOUND

ESSENCE OF LINSEED, ANISEED, SENEGA, SQUILL, TOLU, &c (with Chlorodyne).

WINTER SEASON, 1883-4.

KAY'S FAMILY REFERENCE ALMANACK, 1884. Chemists may be supplied with the above popular Annual, with their names, &c., on the cover, free of charge, on writing to Messrs. KAY BROTHERS, and undertaking their distribution from house to house as soon as received. Also 1,000 bills for counter use, with name and address, if asked for.

Enclose two (2) labels for correct address, with population of the district and best means of conveyance, under cover (labels on post cards being contrary to regulations), marked "Almanack," at your earliest convenience.

The Almanacks will be sent direct from the printer, with counter bills, showcards, &c., if required.

KAY BROTHERS, OPERATIVE CHEMISTS,

Works and Laboratory: ST PETERSGATE.

7, 9, and 13 LOWER HILLGATE, STOCKPORT.

Successors to Sims, Shaw & Hornby, Founded by Oliver Sims, 1786.

ESTABLISHED 1732.

RICHARD W. WRANGHAM

(Successor to Foster & Wrangham, Established 1732),

CRUSHED LINSEED & LINSEED MEAL MANUFACTURER,

PRACTICAL OIL REFINER, OIL BOILER,

AND SEED CRUSHER

Paint, Colour, Varnish, and Whiting Manufacturer,

OIL, TALLOW, BEESWAX, ROSIN, AND TAR MERCHANT,

PETROLEUM OIL AND TURPENTINE IMPORTER,

SEED, CAKE, CORN, AND GENERAL MERCHANT,

Chemist & Grocers' Sundryman, Wholesale Drysalter.

LIME STREET, HULL.

Exporter to all parts of the World. Importer from all parts of the World.

GELATINE AND GLUE MANUFACTURERS.

COIGNET & CO.

(Late COIGNET PÈRE & FILS),

LONDON, 150 Fenchurch St.; PARIS, 130 Rue Lafayette.

WORKS: ST. DENIS, PARIS, LYONS.

MANUFACTURERS OF

THICK GELATINES, FINE SHEET GELATINES, GLUES, RUSSIAN

GLUES, PHOSPHORUS, PHOSPHATES, ANIMAL CHARCOAL,

DEGELATINIZED BONES.

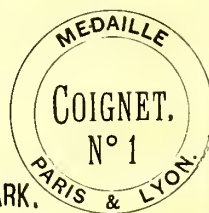
1878—ONLY GOLD MEDAL.

1872—Cross of the Legion of Honour.

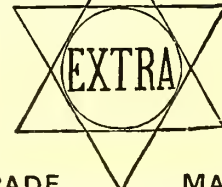
30 other Medals at Paris, London, Vienna, Philadelphia, Melbourne, Brussels, Amsterdam, etc., etc.



Sole
Originator
of the
"Gold Medal"



TRADE MARK.



TRADE

MARK.

Medal, Paris Exhibition, 1867.

Medal, London Exhibition, 1862.



ESTABLISHED 1796.



WILKINSON, HEYWOOD & CLARK,

Varnish, Japan and Colour Works,

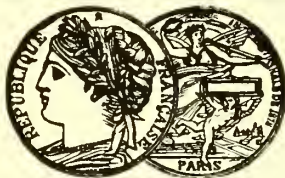
7 CALEDONIAN RD., LONDON, N.

Manufactory—WEST DRAYTON, MIDDLESEX.

DEPOTS IN ALL THE PRINCIPAL TOWNS OF EUROPE.

Paris—87 Avenue du Roule, Neuilly. Liverpool—30 Seel Street.

Gold Medal for Varnish and



Colours, Paris Exhibition, 1878.

Varnishes.—Varnishes of all descriptions for Railway Carriage Builders, Coach Builders, Decorators, Ship Builders, Agricultural Implement Makers, Paper Stainers, Floor Cloth Manufacturers, &c., &c. These Varnishes are all of acknowledged superiority, and will stand the severest tests.

Non-Blooming Varnishes for interior decoration, *guaranteed not to bloom.*

Colours, Dry, Ground and in Pulp, of all kinds.—These Colours have for many years past been supplied to all the leading Coach Builders, House Painters, Paper Stainers, and Agricultural Implement Makers in the United Kingdom and abroad. They are all of the very finest quality; and for brilliancy, softness, and body are unsurpassed.

Non-Poisonous Colours.—A complete series of original Colours, all guaranteed to be non-poisonous. From these Colours an infinite variety of delicate tints can be obtained. Primarily intended for distemper, they can be also used in oil and supplied in pulp.

Colours in Collapsible Tubes.—The advantages of these Tubes are well known. The packages are exceedingly portable; and the exact quantity required can be easily taken out and the remainder kept in perfect condition for any length of time. Guaranteed absolutely pure; and for brilliancy of colour, strength of staining power, and softness, they are unsurpassed.

Paints Ready for Use, in 1, 2, 3, 4, and 7 lb. Tins.—These Paints are intended for domestic use. The Colours are very brilliant, durable, and dry well, and with a good surface.

The demand for these Mixed Paints is rapidly increasing, and large quantities are supplied to all parts of the country and to the Colonies. Tint cards sent on application.

Brushes.—Varnish and Paint Brushes of every description always in stock.

All Brushes manufactured by WILKINSON, HEYWOOD & CLARK bear the initials of the firm, have for years past been in great demand, and give the greatest satisfaction. Illustrated Price Lists sent on application.

Oils.—Raw and Boiled Linseed, Colza, Olive, Lubricating, and other Oils for home and export trades.

WILKINSON, HEYWOOD & CLARK have long enjoyed a great reputation amongst all the leading Coach Builders and Decorators, House Painters, Ship Builders; and for years past they have supplied their goods to the Admiralty, to the War Office, to the India Office, to the Colonial Office, to the Board of Trade, and to the largest Shipping Houses and Railway Companies.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKEY & SONS,

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 3d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S POLISHING PASTE,

For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Boxes, 1d.; Tins, 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876.

"LA BRILLANTINE"

(REGISTERED)

Is used by the Life, Horse, and Dragoon Guards, the Fire Brigades, &c.

METALLIC POWDER

For Cleaning and Polishing Metals and Glass (especially Brass).

PROPRIETORS—

J. F. BAUMGARTNER & CO.,

22 NEWMAN STREET, OXFORD STREET,
LONDON, W.

Sold by all Wholesale Houses. Beware of Imitations.

H. BESSEMER'S GOLD PAINT.

RETAIL PRICES:

Small Bottles of Gold with Liquid	1s. 6d.	Large Bottles of Gold	3s. 6d.
Medium " " " & Bowl & Brush	2s. 6d.	" " " " " "	0s. 6d.

To be obtained of all Chemists, Artists' Colourmen, and Druggists' Sundriesmen.

NEW 1s. 6d. and 2s. 6d. PACKETS.

CONTENTS:—1 Bottle Gold Powder, 1 Bottle Mixing Liquid, 1 Mixing Bowl, 1 Brush, in Cardboard Box. Where the Bowl and Brush are not required, the usual 1s. 6d. Packet should be purchased, as it contains a larger quantity of both Gold and Liquid.

A Copper and Silver Paint, at the same prices, and yielding equally good results, can be obtained.

NOTICE.—The Gold Paint is so easy of application, economical in use, and excellent in appearance, that it is extensively employed in the Ornamental Gilding of Decorative Mouldings, Carvings, and all Fancy Ornaments made either of Metal, Wood, Porcelain, or Plaster, and the effect that can be produced, even by unskilled hands, makes it useful to all engaged in fancy or home embellishment.

Sole Proprietor and Manufacturer, } **RICHARD J. ALLEN**, Mansfield Place, Kentish Town, London, N.W.

If Translations are supplied, Circulars, Cards, or Labels will be printed in any language necessary for its sale.

GOLD MEDAL, ADELAIDE, 1881. DIPLOMA OF MERIT, VIENNA, 1873. ORDER OF MERIT, MELBOURNE, 1880.

Needham's
Polishing Paste,
For Cleaning Bras
Copper, and Britan
Metal Goods, &c.

Pickerings' Razor
Paste,
For sharpening Razors, &c.

Waterproof
Harness Blacking,
For Black Leather
Harness.

Joseph Pickering & Sons (J. Needham), Albryn Works, Sheffield.

Sheffield Knife

Powder,

For Table Knives, Fire
Irons, &c.

Plate Powder,
For Electro-plate
Articles, &c.

Furniture Polish,
For cleaning French
Polished Furniture, &c.

Brunswick

Black,

For all kinds of
Iron Work.



PAINTS. VARNISHES. WOOD STAINS.



VIENNA.

THOMAS S. JACKSON & SONS,



LONDON.

READY-MIXED PAINTS,

Packed in 1, 2, 4, 7, and 14-lb. Tins.

28 USEFUL and SALEABLE TINTS,

Superior Colours, well packed, and guaranteed to Dry Well.

HANDSOME SHOW BOARDS

(Framed and Glazed), with Specimens of the Colours, supplied.

PRICES AND SAMPLE CARD ON APPLICATION.

MANUFACTURERS OF

OIL VARNISHES

(Every description).

JAPANS.

BRUNSWICK AND BERLIN BLACKS.

TEREBINE.

FRENCH POLISH.

WHITE AND BROWN HARD SPIRIT VARNISHES.

KNOTTING. LACQUERS.

DRYERS and } of the finest
GROUND COLOURS } quality.

DRY COLOURS, all Prices and Shades.

IMPORTERS OF OCHRE,
ULTRAMARINE, &c.

WOOD STAINS,

"SPECIAL."

MAHOGANY, OAK, WALNUT
SATINWOOD,
ROSEWOOD, EBONY.

Draught, or packed in 6d. bottles ($\frac{1}{2}$ -pint).
Also in powder.

SHOW BOARDS,

With specimens of the Stained Woods, supplied.

The demand for these Stains is steadily
increasing. They possess great richness
and truth of colour, and

ARE OFFERED AT A REASON-
ABLE PRICE.

NOTICE.—All communications should be addressed to the Office—

LAYTON'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.

There is no connection with any firm of a similar name.

ESTABLISHED 1853.

W. B. WILLIAMSON & SONS, Providence Works, WORCESTER,

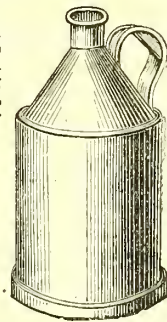
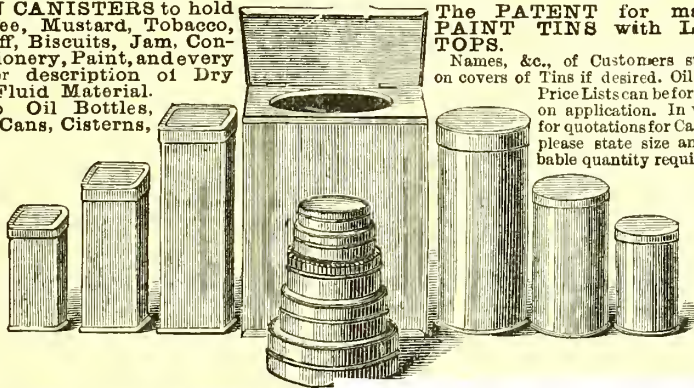
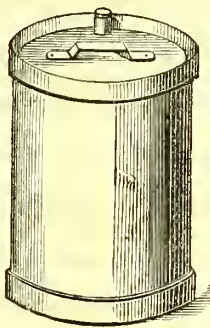
MANUFACTURERS OF

TIN CANISTERS to hold
Coffee, Mustard, Tobacco,
Snuff, Biscuits, Jam, Con-
fectionery, Paint, and every
other description of Dry
or Fluid Material.
Also Oil Bottles,
Oil Cans, Cisterns,
&c.

PROPRIETORS OF

The PATENT for making
PAINT TINS with LEAD
TOPS.

Names, &c., of Customers stamped
on covers of Tins if desired. Oil Bottle
Price Lists can be forwarded
on application. In writing
for quotations for Canisters,
please state size and pro-
bable quantity required.



BIGGS & OLIPHANT,

TIN WORKS,

HERTFORD ST., HAGGERSTON RD., LONDON, E.

MANUFACTURERS OF ALL KINDS OF

TIN CANISTERS, OIL BOTTLES, &c.,

FOR

CHEMISTS, DRUGGISTS, GROCERS, CONFECTIONERS,
AND OIL MERCHANTS.

Also Packages suitable for the New Postal Arrangements
for Post Parcels.

PRICES ON APPLICATION.

BURROUGHS
SPIRITUS RECTIFICATUS P.B.

SPIRITS OF WINE

THE BEST ENGLISH GRAIN SPIRIT
FREE FROM FUSIL OIL CHEMICALLY PURE
5 gallons 80 over proof at 20/1 net cash
Special Quotation for Quantity
DUTY FREE FOR EXPORT 4/4

Best BURROUGHS
Cale St Distillery
Methylated
CHELSEA, S.W.
Spirits
AT LOWEST PRICES
BURROUGHS

JONES & MASON, METHYLATED SPIRIT MAKERS.

Regent Wharf, Copperfield Road, Mile End, London, E.
FROM RATCLIFF.

SAMPLES AND PRICES UPON APPLICATION.

METHYLATED SPIRIT AND FINISH

supplied of the best quality, to suit the requirements of all trades, by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

London Agents—JAMES CHAMBERS & CO., 291 Old Street, E.C.,

who keep Spirit always in stock at the London Depot, 291 Old Street, City Road, E.C.

PURE SPIRITS OF WINE

FOR

TINCTURES, ESSENCES, PERFUMES, &c.,
OXFORD ROAD DISTILLERY, MANCHESTER.

MESSRS. SMITH & GIBB

Beg to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon
68 over proof ..	0·8438	20/10
60 ..	0·8398	20/4
55 ..	0·8366	19/10
50 ..	0·8482	19/4

Terms—Cash on Delivery. Jars to be returned or 1 at 1 for.

For Exportation, Cask included, 4/0, 60 O.P., F.O.B.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 5 galls. 5/6; 6 galls. 6/-. When the empties are returned the money will be repaid.

EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & Sons are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide* P. J. Vol. I. No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,

5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

CHUBB'S Best SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross, and in boxes, at 8s. and 10s. per dozen.

CHUBB'S Extra Scented VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. 6d. gross, and 2d. Boxes, 12s. 6d. gross, and in 1/4-lb. and 1/2-lb. Packets, 10d. per lb.

CHUBB'S Pre- pared FULLER'S EARTH

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. 6d. gross, and in 3d. and 6d. ROUND Boxes, 2s. and 3s. 6d. dozen.

SUBJECT TO USUAL DISCOUNT.

May be obtained through all the Wholesale Houses, or direct from

CHUBB & CO., 29 OLD ST., LONDON, E.C.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

Paton & Charles

(ESTABLISHED 1785),

Tunnel Soap Works,**LONDON, E.****Paton & Charles**

(ESTABLISHED 1785),

Tunnel Soap Works,**LONDON, E.****A HIGH-CLASS PERFUMED HYGIENIC TOILET SOAP.***Strongly recommended by the Medical Profession for its beneficial effects on the Skin, and for Preventing the Transmission of Cutaneous Diseases.***DR. HASSALL'S REPORT ON THE HYGIENIC SOAP OF MESSRS. PATON & CHARLES.**

"We have very carefully analysed samples of the Hygienic Soap manufactured by Messrs. PATON & CHARLES, and have also
 "subjected them to certain practical tests with a view to determine their antiseptic action; we find, that when as little as
 "one part of the soap is added to 10,000 parts of putrescible organic liquids, an efficient antiseptic action is exercised,
 "no decomposition ensuing for a period of several weeks. The agent used is a very energetic antiseptic. This soap
 "is admirably adapted for general as well as for medical use, being very well made, non-irritating, and of an
 "agreeable aromatic odour. It will not only disinfect the skin in cases of infectious diseases, but the suds
 "will tend to purify any sewer or house-drain into which they are thrown. This soap is a valuable
 "adjunct to the sanitary appliances of every household.

"ARTHUR H. HASSALL, M.D.
 "OTTO HEBNER, P.C.S."

Makers of the celebrated "Hard Water Soap" (Regd.), Double Primrose (Regd.), Extra Mottled, and all kinds of Household and Toilet Soaps.

To be obtained from the following Wholesale Chemists:—Messrs. Bais & Co., 4 Jewry Street, E.C.; Messrs. Barclay & Co., Farringdon Street, E.C.; Messrs. Butler & Crispe, 4 Cheapside, E.C.; Messrs. Davy Yates & Co., 64 Park Street, Southwark; Messrs. Edwards & Sons, 157 Queen Victoria Street, E.C.; Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, E.C.; Messrs. Herrings & Co., 40 Aldersgate Street, E.C.; Messrs. Hodgkinson & Co., 144 Aldersgate Street, E.C.; Messrs. Hodgkinson, Preston & King, 89 Leadenhall Street; Messrs. Lynch & Co., Aldersgate Street, E.C.; Messrs. Maw & Co., Aldersgate Street, E.C.; Messrs. Newbery & Son, 1 King Edward Street, E.C.; Messrs. Sanger & Co., 252 Oxford Street, W.; Messrs. Sutton & Co., Bow Churchyard, E.C.; Thompson, Millard & Co., Lim, Great Eastern Street, E.C.

CHISWICK SOAP COMPANY,

CHISWICK, LONDON, W.,

SOFT SOAP

MANUFACTURERS, WHOLESALE AND EXPORT.

"IMPERIAL" SOFT SOAP	Manufactured specially for Domestic use, and packed in 1, 2, 3, 3½, 4, and 7 lb. Tins.
"FINEST PALE"	Very pale Amber colour, odourless. Packed in barrels, firkins, half-firkins, and 14-lb. tins.
"BBB," "BB," "BL," "	The usual qualities, and kept in all packages to suit buyers.
CARBOLIC	Contains 10 % Calvert's No. 5 Acid. For Dogs and Cattle, making Sheep Dip, and general disinfecting purposes. Packed in 1, 2, 4, and 7 lb. tins; 14, 28, 56, and 112 lb. iron drums.
OLIVE	The B.P. "Sapo Mollis," made from finest Olive Oil and pure Potash, in tins, firkins and jars.

ROYAL**THRIDACE SOAP.****VELOUTINE SOAP.****SUPERIORITY OF****VIOLET'S TOILET SOAPS**

(BY MEDICAL CELEBRITIES RECOMMENDED)

is confirmed by experience of half a century.

VIOLET,

PARIS, rue Saint-Denis 228.

WHOLESALE AGENTS:

R. HOVENDEN & SONS, London.

COPYRIGHT, 3RD EDITION. PRICE 7s. 6d., POST FREE.

Invaluable at Home and Abroad.

THE CONFECTIONERS' HANDBOOK AND PRACTICAL SUGAR BOILER

Teaches the whole art of making Sweets of every description, English and Scotch Pastry, Biscuits, Jams, Jellies, and Marmalades, Ice Creams, Chocolates, Cordials, Aërated Waters, Fermented Beers, Pickles, &c. To manufacturers, shopkeepers, cooks, and everyone interested in the business, this book is worth its weight in gold. Vide the opinions of *The Chemist and Druggist*, *Grocer*, *Caterer*, *Times*, and upwards of 1,000 unsolicited testimonials.

P.O.O. payable at Southwick Street, W.,

E. SKUSE,

Practical Confectioner and Confectioners' Machinist,

30d PRAED STREET, LONDON, W.

ILLUSTRATED PRICE LISTS, &c., POST FREE

The Cheapest Receipt Book ever published. Now Ready, price 2s. 6d.

500 PRACTICAL TRADE RECEIPTS

(GENERAL, REMEDIAL, VETERINARY).

FOR CHEMISTS AND DRUGGISTS,

Including Approximate Formulae of several popular Proprietary Articles.

Formulae which have been devised and published in English and Foreign Journals since the last editions of more expensive works were published are included in this work.

London: SIMPKIN, MARSHALL & CO., and all Booksellers.



Used and recommended by several eminent Physicians. A PAINLESS AND UNFAILING REMEDY.

This preparation has the advantage over similar preparations in being quite painless. After 2 or 3 applications the Corn—which will be destroyed—can be easily picked out, leaving the part healthy and free from pain.

It is put up in cases containing a Bottle of Paint, Adhesive Plaster, and Camel-hair Pencil, fixed, in dozens, on neatly-bronzed show-cards, with counter bills.

Sample free by post, 7½d.

Prepared only by the Inventors, J. HARGREAVES & SON, Chemists, 108 Fylde Road, Preston.

London Depôt: 1 & 2 Australian Avenue, E.C. Liverpool Depôt: 149 Duke Street. Sold by all Patent Medicine Warehouses and Druggists' Sundriesmen.

AGENTS WANTED IN THE COLONIES.

RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acct.
Plain Black Currant, old square ..	2 6	2 8
" " " rough oval ..	2 6	2 8
Black Currant and Ipecacuanha ..	2 6	2 8
Black Currant and Tannin.. ..	3 0	3 3
Black Currant Voice (warm astringent) ..	3 0	3 3
Black Currant Cough Lozenges * ..	3 6	3 10

(* Ipecac. and Morph., strength as "B.P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free, and MUSK LOZENGES (Special), 2s. 6d., 2s. 8d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.

PREPARATIONS OF THE Chevalier Ruspini

I. RUSPINI'S STYPTIC

Stops all External Bleeding and Internal Hæmorrhages.

Bottle, 4/6; Magnum, 10/6.

A Magnum contains as much as 3 Bottles.

II. RUSPINI'S ASTRINGENT TINCTURE,

FOR THE TEETH AND GUMS.

This preparation is recommended by the Faculty. Imitations have from time to time been sold under the name of "Ruspini's Tincture." The original Recipe has never been published but remains with the present Proprietor.

A great reduction has been made in the price of this article.

Bottle, 2/9; Magnum, 5/6.

III. RUSPINI'S DENTIFRICE.

Boxes, 1/6, 2/9, 4/6, and 10/6 each, according to size.

IV. RUSPINI'S ELIXIR FOR THE CURE OF TOOTHACHE.

An instantaneous Cure. 1/- each Bottle (2 drachms).

All these Preparations are carefully compounded from the Original Recipes in the handwriting of the Chevalier Ruspini. They are wrapped in blue paper with yellow labels, and the Government Stamp bears the signature Ruspini.

WHOLESALE AGENTS:

LONDON ... Messrs. Barclay & Sons. They may

also be obtained of

Messrs. John Sanger & Sons,

Messrs. Lynch & Co.

Messrs. F. Newbery & Son, and

Messrs. W. Edwards & Son.

EDINBURGH ... Messrs. Duncan, Flockhart & Co.

GLASGOW ... Glasgow Apothecaries' Co.

ABERDEEN... Messrs. James Sim & Co.

DUBLIN ... Messrs. Butler & Co., Butler's Hall.

BELFAST ... Messrs. Grattan & Co.

LIVERPOOL ... Messrs. Clay & Abraham.

MANCHESTER ... Messrs. Jas. Woolley, Sons & Co.

BIRMINGHAM ... Messrs. Southall Bros. & Barclay.

LEEDS ... Messrs. Reynolds & Branson

BRISTOL ... Messrs. Ferris & Co.

CARDIFF ... Messrs. Kernick & Son.

CHESTER ... Messrs. Grindley & Son.

HULL ... Messrs. Lofthouse & Saltmer

YORK ... Messrs. Clarke, Bleasdale, Bell & Co.

BATH ... Messrs. Ekin & Appleby.

SPECIAL AGENT:

Mr. SILVESTER, Pharmaceutical Chemist, Knutsford.

OSCAR SUTTON & CO., Preston, Lancashire.



O S TOOTH BLOCK

"THE BEST AND SAFEST DENTIFRICE."

Sold by all Chemists and Perfumers in elegant Crystal Toilet Cases, price 2/6; also in Patent Metallic Box, price 1/1. This celebrated Dentifrice enjoys the approval of the leading dentists and highest authorities in sanitary matters.

Hundreds of Testimonials.

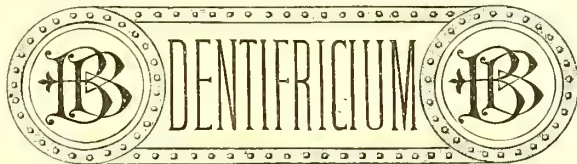
TRADE MARK—REGISTERED.

Dr. J. J. POPE, M.R.C.S., L.S.A., Professor of Hygiene, Birkbeck Institute, Lecturer on the Special Staff of the National Health Society, London (author of "Number One, and How to Take Care of Him"), writes—

"I find your 'Tooth Block' a highly pleasant and most convenient dentifrice. It is as efficacious as it is elegant, and I should say peculiarly adapted for use in youth, from its non-injurious character and mild detergent properties."

Wholesale of Messrs. Evans, Barclay, Hovenden, Maw, Newbery, Thompson Edwards, Sanger, &c., London, and of all the leading Dental Houses; also of Messrs. Felton, Grimwade & Co., Locke, Tompsett & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

Title Secured. Price 2/6. Cases of Six, 14/-



TRADE MARK 27668.

INVENTED BY A TALENTED PHYSICIAN.

Recommended by eminent Surgeon-Dentists. Patronised by the "Mond" elegant" as the best and most agreeable liquid Dentifrice yet introduced.

PROPRIETORS—

BARTON BROTHERS, BRIGHTON.

Also Sole Proprietors of the Original

"BRIGHTON GLYCERINE CREAM."

WHOLESALE FROM

Messrs. Barclay, E. Cleaver, Edwards, Newbery, Sanger, Sutton, &c.

AN IMPROVED
NEW

White Stopping.

PRICE, 5s. 6d.

ODONTALITE

Sole Agents—

SMALE BROTHERS,

19 GREAT MARLBOROUGH STREET,
LONDON.Post Free on receipt
of P.O.O.

BEDDARD'S BELGRAVIA TOOTH-PASTE

(REGISTERED)

Is entirely different from any article of the kind, very much liked by customers, a most effectual dentifrice, and handsomely put up in large jars,

ONE SHILLING EACH;

WHOLESALE OF ALL PATENT HOUSES.

LIBERAL DISCOUNT TO LARGE BUYERS.

Prepared only by

JOHN BEDDARD,

48 CHURTON ST., BELGRAVE ROAD, LONDON, S.W.

PREPARED SILVERY WHITE GUTTA PERCHA ENAMEL, For Stopping Decayed Teeth. TRADE MARK P. A. STEVENS,

CHEMIST AND SURGEON DENTIST,
(LATE OF HOXTON, N.)72 MANSFIELD ROAD,
HAVERSTOCK HILL, N.W.

REGISTERED—NO. 3745.

SOLE PROPRIETOR AND MAKER OF THE ABOVE.

P. A. S. can supply the above to Wholesale Houses in Sheet or Sticks, in any quantity, with their name stamped upon each piece.

The above to be obtained of all Wholesale Houses. Price List and Samples sent Post Free.

SPECIAL NOTICE.—The words SILVERY WHITE GUTTA PERCHA ENAMEL for Stopping Decayed Teeth are registered as a Trade Mark, and will be protected.

WHITE AND SOUND TEETH.

JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been Fifty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY and BROWN, CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.



Notice to the Trade

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,
IS KNOWN THROUGHOUT THE WORLD AS

No. 4,

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In 4 oz. Bottles.

In 6 oz. Bottles.

In 8 oz. Bottles.

In reputed $\frac{1}{2}$ -Pint, Wickered.

In reputed Pint, Wickered.

In reputed Quart, Wickered.

In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,
COLOGNE-ON-THE-RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853;
LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875;
PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURTENAY & CO.

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.

COPYRIGHT—ORIGINAL—AND ONLY GENUINE

WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Richly Perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed. 1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS. Per doz.			BOUQUETS. Per doz.		POMADES, &c. Per doz.	
Cent-Fleur (copyright)	2/6	Boxes of 3 tablets 20/	Cent-Fleur (copyright)		Cent-Fleur (copyright)	... 8/ 12/ & 20/
Jockey Club	1/6	" 12/	Jockey Club Bouquet...	In Glass	Petroleum Pomade	... 12/ & 18/
Sandringham	1/6	" 12/6	Ess Bouquet ...	Stoppered	Brilliantine	... 8/ 12/ & 20/
Eucalyptus Oil	1/6	" 12/	Frangipanni ...	or	Anglo Eau de Cologne	... 8/ & 12/
Wild Thyme (Thymol)	1/	" 8/	Pearl of Perfumes ...	Sprinkling	Eucalyptus Vinegar	... 12/ & 20/
Semi-Cut Bars	1/	Bars of 6 kinds 8/6	Lime Tree Blossoms ...	Bottles.	White Cherry Tooth Paste	8/ & 12/

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,

WHITAKER & GROSSMITH, 22 SILK STREET (REMOVED FROM 120 FINE STREET), LONDON, E.C.

ORTH'S GLYCERINE.

Manufacturer: G. H. ORTH, Barmen.

S. G. 1,260, Double Distilled, Perfectly Colourless and Odourless, will stand every chemical test. Lower S. G.'s and inferior qualities also supplied.

LONDON AGENT—

H. RUBECK, 14 MINCING LANE, E.C.

Samples and Prices on application.

GREENSILL'S FAR-FAMED MONA BOUQUET

THE ORIGINAL AND ONLY GENUINE.

The great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

T. S. GREENSILL, Chemist, Douglas, Isle of Man, Inventor, Proprietor, and Maker.

AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Barclay; Whittaker & Grossmith; Hovenden; Parton & Osborne; Butler & Crispe; Tidman & Son; Barron & Squire; Wright, Layman & Umney; Jno. Thompson; Burgoyne, Burdidge & Co.; Grimwade, Ridley & Co.; Balis Brothers; Lynch & Co. LIVERPOOL: Evans, Sons & Co.; Clay, Dod & Case; B. Sumner & Co.; Raimes & Co.; Ayrton & Saunders. MANCHESTER: J. Woolley; Lynch & Bateman; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Flockhart. DUBLIN: M'Master; Hodgson. YORK: Sutcliffe & Headley; Clark, Bleasdale. THIRSE: Wm. Foggett. BRISTOL: Ferris & Co. LEEDS: Goodall & Backhouse. BIRMINGHAM: Churchill & Son; P. Harris & Co.; Parton & Osborne; Southall Bros. & Barclay.

Agents for CALCUTTA: Smith, Stanistreet & Co. MONTREAL: Sugden, Evans & Co. NEW ZEALAND: Kempthorne, Prosser & Co. MELBOURNE: Felton, Grimwade & Co. Introduced in 1852.

Registered Trade Mark—"Tower of Refuge, Douglas Bay."

F. A. SARG'S SON & CO.'S CHEMICALLY PURE GLYCERINES AND TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

In registered Packets of three Tablets, and in oval Tablets in paper. Warranted to contain 33% of the purest Glycerine.

Liquid Glycerine Soap,

Best preventive against chapped hands, and unrivalled for imparting softness to them, and rendering them clean and white. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

Sarg's Double Distilled Glycerine, Chemically Pure,

In $\frac{1}{2}$ lb. and 1 lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandruff, and the roughness of the scalp they are so commonly subject to.

Sarg's New Carbolic Glycerine Soap,

In Boxes of three Tablets, is highly recommended as a most effective disinfection.

GLYCERINE, CHEMICALLY PURE.

SARG'S DISTILLED CHEMICALLY PURE GLYCERINE, 29° Beaumé, in Cases of Four 56-lb. Tins each. SARG'S DOUBLE DISTILLED GLYCERINE, Chem. pure, 30° Beaumé, in Cases of Four 56-lb. Tins each; Twenty 6-lb. Bottles, Fifty 1-lb. Bottles, and 100 $\frac{1}{2}$ -lb. Bottles, with Registered Label.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS.

SOLE WHOLESALE AGENTS FOR THE UNITED KINGDOM AND THE COLONIES,

SCHMEDES, ERBSLOH & CO.,

36 & 37 Monkwell Street, LONDON, E.C.; 14 Market Buildings, Flinders Lane, MELBOURNE; 34 Pitt Street, SYDNEY.

ALLCHIN'S SMELLING SALTS.

The increasing demand for these celebrated Smelling Salts has induced the Proprietor to bring them out in a more portable and elegant form than hitherto supplied. The New-shaped Bottles will be found well worth the attention of the Trade.

WHITE FLINT GLASS, Handsomely Cut, 3 Sizes, Retail 1/6, 2/-, 2/6
 " " " Watch Shape, for the Pocket, 3 Sizes, Retail 1/-, 1/6, 2/-

ALFRED ALLCHIN'S PHARMACEUTICAL PREPARATIONS.

SMELLING SALTS.—The MONOCARBONATE OF AMMONIA, manufactured by ALFRED ALLCHIN, is the Neutral Salt so much valued for the preparation of Smelling Salts. It retains its pungency as long as any Salt remains. 1-lb. bottles, 2s. 8d. each.

LIQ. AMMON. ODORIF., or **VOLATILE ESS.**, for Allchin's Ammon. Monocarb. In Stoppered Bottles, 4-oz., 1s. 8d.; 8-oz., 3s.; 16-oz., 6s. each.

PUNGENTS, with handsome Cut Stoppers, filled with Allchin's Smelling Salts, 8s. per doz.; retail, 1s.

OL. ROSÆ CONCENT.—One ounce of this Concentrated Solution of Anchusine, mixed with two pounds of Oil, will give it the usual colour; it is also admirably adapted for colouring Pomades, Lip Salve, Camphor Balls, &c. 4s. per lb.

OL. FLAV. CONC.—One ounce, added to two pounds of Pomade, will give the usual golden colour, which is permanent. 4s. per lb.

Sole Proprietors—

W. BUSH & CO. (late Allchin), Chemists, 180 Barnsbury Road, London.

TO BE HAD OF ALL THE WHOLESALE HOUSES.

FR I C T I O N .

THE MOST PLEASANT MODE OF APPLYING IT TO SKIN IS BY THE
PANSTREPTON (or All-Pliant) FLESH BRUSH.

The best Article ever introduced for the purpose.

PRICES FROM 22/ to 36/ per doz.

Of all WHOLESALE HOUSES or of the SOLE MANUFACTURER,

R. CONDRON, 2 BINGFIELD STREET, LONDON, N.

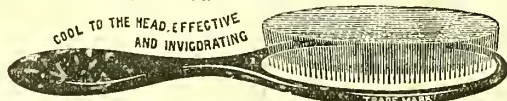
HENRY MARKS & SONS, SPONGE MERCHANTS,

45 Houndsditch, London, E.C.; and at Hydra & Syra (Greece), and Symi & Smyrna (Turkey).

(ESTABLISHED 1810)

WHOLESALE AND EXPORT ONLY.

IMPORTANT TO SHIPPERS.



ASHWORTH'S PATENT METALLIC COMB-BRUSH AND METALLIC-BRISTLE COMB-BRUSH.

These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine tempered steel wires, about the thickness of ordinary bristles. This penetrates, smoothes, and fixes the hair. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan 1/9, 2/3, 2/9
 Gentlemen's Black Japan, Military Style 2/0, 2/6, 3/0
 Dog, Cattle, and Horse Brushes 2/0, 2/6, 3/0

Prices of Metallic-Bristle Comb-Brush, post free.

TEMPERED FINE STEEL WIRE.
 Ladies' and Gentlemen's Black Japan 2/4, 3/0, 4/0
 Ivory-coated 2/8, 3/6, 4/4
 Gentlemen's Black Japan, Military Style 2/8, 3/6, 4/4

The "Humanitas" Curry Comb Brush, for Horses,
 Dogs, Cattle, &c.—Prices:

Made of iron wire, covered with white metal—No. 1, 1/0 each; No. 2, 1/6 each.
 " fine steel wire, covered with white metal—No. 0, 1, 1/6; No. 0, 2, 2/0 each.
 All Goods are forwarded safely packed in Neat Boxes.

ASHWORTH BROS., Collyhurst, Manchester, England.

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/, 1/9, and 3/6; Wholesale, 9/, 15/, and 30/ per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the SOLE CONSIGNEE, **THOMAS WEST, Chemist, Stretford, Manchester.**

W. S. YATES,

Chemists' Shop Fitter, Shop Front Builder, and
 Glass Show Case Maker.

DENTIST CASES.

Plans and Estimates supplied for Work in any part of the Kingdom

9 CAMDEN STREET, LIVERPOOL.

See July issue of THE CHEMIST AND DRUGGIST for List of Shop
 Fitted by W. S. Yates.

SPONGES.

R. CRESSWELL & CO.,

SPONGE MERCHANTS & IMPORTERS,

32 Red Lion Square, London;

AND AT PIRÆUS AND SMYRNA.

ESTABLISHED 1850.



GOLD MEDAL AWARDED, BRUSSELS EXHIBITION, 1881.



Messrs. R. C. & Co. having secured large additional premises in Fisher Street, Red Lion Square, are now in a position to show off one of the most extensive Stocks of Sponges in the world. Buyers can inspect goods by the Case, Piece, or Weight, offered at prices lower than those of any other house.

PRICES CURRENT OF SANDED AND SANDLESS SPONGES, IN ORIGINAL CASES AS IMPORTED.

HONEY-COMB SPONGES.

No.	Qty.		Pieces in case about	Price case.
			£	s. d.
1	1st	Finest selected shapes, assorted sizes	130	12 0 0
2	1st	Do. do. do.	75	7 0 0
3	1st	Do. do. do.	45	4 0 0
4	1st	Small selected shapes	275	7 0 0
5	1st	Superior do. large Bath sizes	25	7 0 0
6	2nd	Do. quality shapes, assorted sizes... ..	125	8 0 0
7	2nd	Do. do. do.	75	4 4 0
8	2nd	Good quality shapes, small ...	275	3 10 0
9	2nd	Do. do. large Bath sizes	25	5 0 0
10	3rd	Do. do. assorted sizes ...	145	5 5 0
11	3rd	Do. do. do.	90	3 10 0
12	3rd	Do. do. large Bath sizes	25	3 0 0
13	4th	For Stable use, &c.	220	2 10 0

FINE TURKEY SPONGES.

14	1st	Finest selected Cups, assorted sizes	110	18 0 0
15	1st	Do. do. do.	55	10 0 0
16	1st	Do. do. Bath sizes	35	12 0 0

Fine Turkey Sponges—continued.

No.	Qty.		Pieces in case about	Price case.
			£	s. d.
17	2nd	Superior Cups, assorted sizes	110	12 0 0
18	2nd	Do. do.	55	7 0 0
19	2nd	Do. Bath sizes	35	9 0 0
20	3rd	Fine Cups, assorted sizes	110	9 0 0
21	3rd	Do. do.	65	5 5 0
22	3rd	Do. Bath sizes	35	7 0 0
23	1st	Turkey Solids, assorted sizes	115	7 0 0
24	2nd	Do. do.	110	5 10 0
25	1st	Flat Saddle, assorted sizes	55	9 10 0
26	1st	Do. do.	35	6 0 0
27	2nd	Do. do.	55	6 10 0
28	2nd	Do. do.	35	4 0 0

BROWN TURKEY SPONGES.

29	1st	Finest selected, assorted sizes	140	4 10 0
30	1st	Do. do.	75	2 15 0
31	2nd	Superior quality, do. ...	140	3 3 0
32	2nd	Do. do.	75	2 0 0
33	3rd	Slate quality, do.	350	1 1 0

The above may be had Sanded or Sandless, as required.

ALL COMMUNICATIONS TO BE ADDRESSED TO LONDON OFFICES.

A PERFECT BOON TO MOTHERS! ROGERS' "NURSERY" HAIR LOTION.

One application is guaranteed to destroy all Nits and Parasites in Children's Heads, and immediately allay the Itching and Irritation. It is now used in Thousands of Families with the greatest success, and all who have tried it are delighted with the effect, and declare it to be worth A GUINEA A BOTTLE.

PREPARED ONLY BY
WILLIAM ROGERS,
CHEMIST,
BEN JONSON ROAD, STEPNEY, E.
Sold in large Bottles, price ONE SHILLING. Sample Bottle, 7d.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Label.
WHOLESALE AGENTS.—Barclay & Son; Edwards & Son; Maw, Son & Thompson; Millard & Son; Sanger & Sons; Thompson & Co., Limited; Butler & Crispe; Hovenden & Sons; Newbery & Sons.

JAMES'S TOILET SPECIALITIES.
JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &c., and taking away Tan Freckles, Sunburn, &c. Sold by all Chemists, 1/1½ and 2/9 per box.

JAMES'S DEPILATORY,
For the instant removal of Superfluous Hair. Sold by all Chemists, 1/- per box.

JAMES'S HERBAL POMADE,
For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES & CO., 226 Caledonian Rd. LONDON, N

SANITARY ROSE POWDER.

(REGISTERED.)

*"The Perfection of
Nursery Powders."*

An Antiseptic Dusting Powder for Toilet and Children's Use.

A RELIABLE SUBSTITUTE FOR VIOLET POWDER, FULLERS' EARTH, &c.

"An improvement on the old-fashioned Violet Powders, which are manufactured under very various formulae. It is an advantage of this Powder as compared with ordinary Fullers' Earth, that it is not liable to cake, and thus to excite irritation."—BRITISH MEDICAL JOURNAL, June 16, 1883.

"Its employment, in nurseries particularly, may be strongly recommended."—MEDICAL PRESS AND CIRCULAR, June 27, 1883.

"As a high-class toilet powder this preparation is likely to enjoy a good deal of favour."—THE CHEMIST AND DRUGGIST, July 14, 1883.

In Boxes 1/, 1/9, and 3/, and in Large Bottles at 5/.

Wholesale London Agents—Messrs. W. EDWARDS & SON, 157 Queen Victoria Street.

Proprietors—J. WOOLLEY, SONS & CO., Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HANDBILLS ON APPLICATION.

Robare's Aureoline, OR GOLDEN HAIR WASH.

The attention of the Trade is respectfully called to the above Article, now having a large sale, and giving an excellent profit to the Retailer.

5/6 size, 36/ per doz. 10/6 size, 72/ per doz.

SOLE WHOLESALE AGENTS—

R. HOVENDEN & SONS, LONDON.

WOMAN'S Greatest CHARM NORINA'S EMOLLIENT.

It is unequalled for producing a dazzling purity of complexion, and giving it surpassing loveliness. It removes freckles, wrinkles, sunburn, spots, &c., improves the texture of the skin, rendering it exquisitely fine and soft, and showing the delicate blue tracings of the veins so much admired.

Price 6s. 6d. To be had of all Chemists and Perfumers.

Wholesale Agents, MESSRS. NEWBERY,
1 King Edward Street, Newgate Street, London.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s.

Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY.

F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.

IMMENSE SALE.

WOODS' ARECA NUT
TOOTH PASTE.

Price, 6d. and 1/- per Pot.

Sold by all Wholesale Houses.

"BLANCHEUSE," THE NEW FACE POWDER

One of the Best Preparations now in the Market.

This Article is being largely advertised, and the Trade will do well to keep it in Stock.

IN WHITE, IVORY, AND ROSE.

1s. size, 7s. 6d. per doz. Packets; 5s. Boxes, 42s. per doz

Recommended by

Madame PATTI, Mrs. BANCROFT
Mrs. BERNARD BEERE,
Mrs. KENDAL, Miss ST. JOHN
And the Theatrical Profession generally.

SOLE WHOLESALE AGENTS:

OSBORNE, GARRETT & CO., 51 Frith Street, Soho
LONDON, W.
Proprietor, Madame JULLIET, 86 Fleet Street, E.C.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

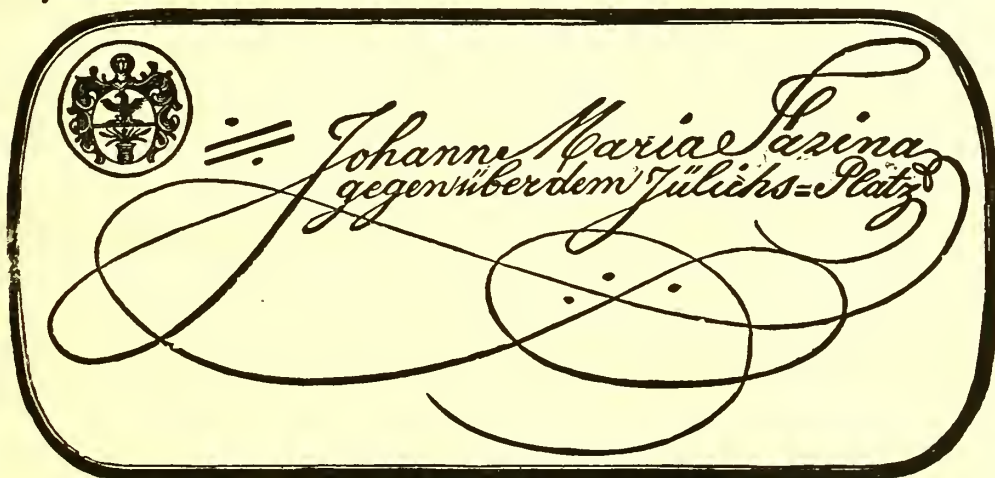
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	4 "
" 6. ditto (large)	2 "	

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

PAPER BOX MAKING MACHINERY

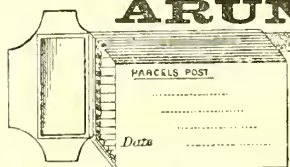
MILLBOARD CUTTING MACHINES.
GUILLOTINES.
CORNERING MACHINES.

MANUFACTURED BY

DIVISION SAWING MACHINES.
SCORING-MACHINES.
THUMB-HOLE MACHINES, &c.

W. CROSLAND,

New Street, Miles Platting, MANCHESTER.



ARUNDEL & MARSHALL'S PARCELS POST BOXES FOR BOTTLES, &c.,

Are perfectly secure and safe for transmission through the Post.

TO BE HAD OF ALL DEALERS.

2 oz., 3 oz., 4 oz., 6 oz., 8 oz., 10 oz., 12 oz., 16 oz., kept in Stock.

Folding Bottle Cases of all Descriptions and Sizes. Price List on application.

PENN STREET WORKS, HOXTON, LONDON, N.

TO HER MAJESTY'S ARMY CLOTHING DEPARTMENT.

ESTABLISHED A.D. 1815

GENUINE INDELIBLE MARKING INK

THE LEADING & STANDARD ARTICLE

PREPARED ONLY BY THE WIDOW OF THE LATE JOHN MURPHY

CHEMIST AT THE ORIGINAL ESTABLISHMENT

11, NILE STREET, EAST ROAD, HOXTON, N.

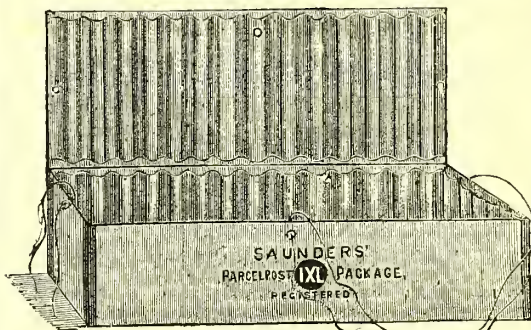
NO OTHER ADDRESS - BEWARE OF WORTHLESS IMITATIONS.

SAUNDERS' I-X-L SAFETY PARCELS POST BOX.

(REGISTERED.)

Made Extra Stout
and
Edged with Cloth.

These Boxes combine in an eminent degree the requisite strength, lightness, and security necessary for making them the most suitable packages at present known for sending articles of any description through the post, and meeting, to the fullest extent, all the requirements of the Postal Authorities.



Lined with Patent
Corrugated
Paper.

These Boxes are manufactured in ten different sizes, which are always kept in stock, as particulars given below; but, in addition to these, orders can be promptly executed for any other size, and samples and quotations will at once be forwarded on receipt of business card.

Nos.	1	2	3	4	5	6	7	8	9	10
Size Inside ..	$4\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$	$5 \times 1\frac{1}{2} \times 1\frac{1}{2}$	$5\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$	$5\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$	$6 \times 2 \times 1\frac{1}{2}$	$6\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$	$7\frac{1}{2} \times 2\frac{1}{2} \times 2$	$7\frac{1}{2} \times 2\frac{1}{2} \times 2\frac{1}{2}$	$7\frac{1}{2} \times 3\frac{1}{2} \times 2\frac{1}{2}$	$8\frac{1}{2} \times 3\frac{1}{2} \times 2\frac{1}{2}$
To Hold ..	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz. Bottles.
PRICE ..	10/-	11/-	12/-	12/-	14/-	16/-	18/-	20/-	22/-	24/- per gross.

The sizes given are length, width, and depth.

At foot we give two unsolicited Testimonials, selected from the many already received:—

FROM J. EVANS, ESQ., DAWSON STREET, DUBLIN.

"You could not have a better Box: I have tested it in every way."

FROM MR. GWILYM EVANS, CHEMIST, LLANELLY.

"I am very much pleased with the Sample Boxes sent. It is a very novel idea, and you ought to sell them readily, and in large quantities."



SOLE PROPRIETORS,

AYRTON & SAUNDERS,

Fancy Box Makers, LIVERPOOL.

A FEW OF

S. MAW, SON & THOMPSON'S

SPECIALTIES

Well worth the attention of the Trade.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

MAW'S AROMATIC TOOTH PASTE	...	...	Per dozen, 12/.
MAW'S CHERRY TOOTH PASTE	...	...	Per dozen, 4/ and 7/6.
MAW'S CACHOUS AROMATISES	...	...	Per dozen, 2/6.
MAW'S INDELIBLE MARKING INK	...	...	Per dozen, 3/ and 6/.
MAW'S SAUCE PIQUANTE	...	...	Per dozen, 9/ and 15/.
MAW'S VIOLET POWDER	...	...	See Price Current, page 124.
MAW'S ADHESIVE PLASTER	...	...	See Price Current, page 88.
MAW'S ATMOSPHERIC ODORATORS	...	...	See Price Current, page 53.
MAW'S BREAST RELIEVERS	...	...	See Price Current, page 61.
MAW'S CHEST PROTECTORS	...	...	See Price Current, page 65.
MAW'S COURT PLASTER	...	...	See Price Current, page 117.
MAW'S CORN PLASTERS	...	...	See Price Current, page 117.
MAW'S ELASTIC STOCKINGS, &c.	...	...	See Price Current, page 35.
MAW'S ENEMA APPARATUS	...	...	See Price Current, pages 39 to 41.
MAW'S PATENT FEEDING BOTTLES	...	...	See Price Current, pages 69, 70.
MAW'S FLESH GLOVES AND RUBBERS	...	...	See Price Current, page 72.
MAW'S INCORRODIBLE RESPIRATORS	...	...	See Price Current, page 47.
MAW'S INHALERS	...	...	See Price Current, page 76.
MAW'S LINT (TAYLOR'S PATENT)	...	...	See Price Current, page 79.
MAW'S PERFUMERY, &c.	...	...	See Price Current, pages 117, 118.
MAW'S SMELLING BOTTLES	...	...	See Price Current, pages 95, 96.

S. MAW, SON & THOMPSON, ALDERSGATE STREET, LONDON.

NOTICE TO THE TRADE.

HOLT'S HOOPING COUGH SPECIFIC.

This invaluable and world-renowned Remedy, having been in use for upwards of 80 years, can now be obtained throughout the United Kingdom, of all Chemists, Druggists, and Wholesale Houses; also at the

DEPOT: 63 ST. PAUL'S CHURCHYARD, LONDON.

AGENTS ARE WANTED IN EVERY TOWN.

WHOOPING COUGH
THE
POSITIVE CURE
"PERTUSSIS"

POST FREE 9d AND 1/1¹/₂ FROM SOLE MAKER

A.J. HEALD, M.P.S., BURNHAM, BUCKS.

This Preparation is recommended to the Trade with confidence as a CERTAIN Cure for Whooping Cough. Any Chemist who knows of a severe case in his neighbourhood will be conferring a favour on the proprietor if he will write for a *gratis* sample packet of "PERTUSSIS," merely enclosing 1d. stamp for postage, and give it a fair trial. This cannot fail to lead to a demand for the remedy, which only requires an introduction into a neighbourhood where Whooping Cough is prevalent, to command a large sale. Address,

A. J. HEALD, M.P.S., Burnham, BUCKS.



TRADE MARK.

W. EDWARDS & SON,

157 QUEEN VICTORIA STREET, LONDON,

WHOLESALE AND EXPORT DEALERS IN

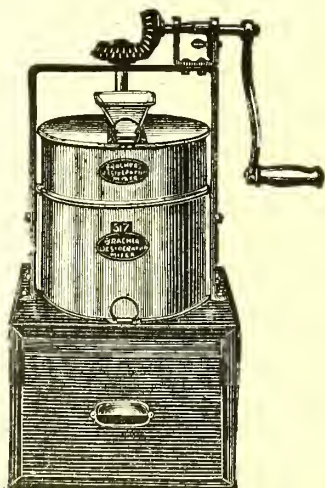
Patent Medicines and Proprietary Articles,

ENGLISH, AMERICAN, FRENCH, &c.

SOLE AGENTS for ROCHE'S HERBAL EMBROCATION,

Burchell's Anodyne Necklaces, Ford's Balsam of Horehound, Widow Welch's Pills, by Mrs. Smithers, &c., &c.

PRICE LISTS SENT ON APPLICATION. ORDERS CAREFULLY AND PROMPTLY EXECUTED.



BRACHER'S PATENT
"Desideratum" Mixing Machines

Admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby *superseding to a great extent the use of the Pestle and Mortar*, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants, and Manufacturers, and are capable of mixing either large or small quantities more quickly than by any other method. They can be worked either *with or without* the cover, are easily cleaned, and are, without doubt, the best and cheapest Mixing Machines ever invented; indeed, it would scarcely be thought possible that the articles could be so thoroughly blended in such an incredibly short time.

MANUFACTORY: 77 HIGH STREET, WINCANTON.

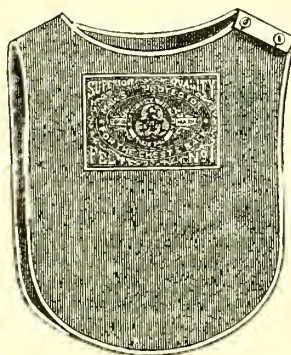
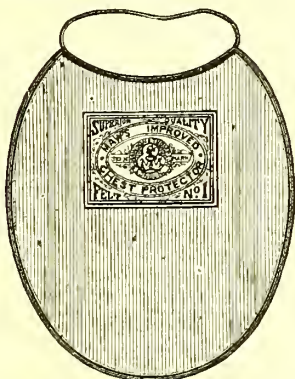
FELT CHEST PROTECTORS.

SINGLE.

DOUBLE.

No.	BEST.		SECOND.	
	s.	d.	s.	d.
1.	7	6	6	6
2.	9	6	8	6
3.	11	6	10	0
4.	14	0	12	0
5.	20	0	16	6

PER DOZEN.



No.	BEST.		SECOND.	
	s.	d.	s.	d.
1.	17	0	15	0
2.	22	6	20	0
3.	28	0	24	0
4.	34	0	30	0
5.	45	0	37	0

PER DOZEN.

Best—All Scarlet, or assorted Scarlet and White.
Second Quality—All Scarlet.

S. MAW, SON & THOMPSON, LONDON.



MAW'S
IMPROVED

EARTHENWARE INHALER,
36s. per dozen.

With Elastic Tube and extra Glass Mouthpiece, 54s. per dozen.



MAW'S
DOUBLED-VALVED

EARTHENWARE INHALER,
60s. per dozen.

Ditto, with Elastic Tube, 78s. per dozen.

S. MAW, SON & THOMPSON, LONDON.

THE CROWN PERFUMERY CO.,

177 New Bond St., London,



Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes, Fancy Soaps, and general Toilet Articles, for the excellent quality of which

SEVEN PRIZE MEDALS HAVE BEEN AWARDED.

Concentrated Essences of Great Fragrance and Strength:—

Tanglewood,
Crown Bouquet,
Meadow Queen,
Mathiola,
Stephanotis,
White Rose,

Jockey Club,
Ess Bouquet,
Wood Violet,
Frangipani,
Rondeletia,
Jasmin,

Opoponax,
Spring Flowers,
Ylang Ylang,
Rose,
Tangerina,
Mignonette.

In our Patent Crown Stoppered Bottles, or with Sprinkler Tops, 16/, 20/, 28/, 48/, and 84/ per doz.

Supplied in Bond at greatly Reduced Prices.

THE CROWN SOAPS are prepared with great care from the purest materials, delicately perfumed, and very lasting.

BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.—In Card Boxes of 3 tablets each, 8/ and 12/ per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/, 74/, 84/, and 120/ per cwt.

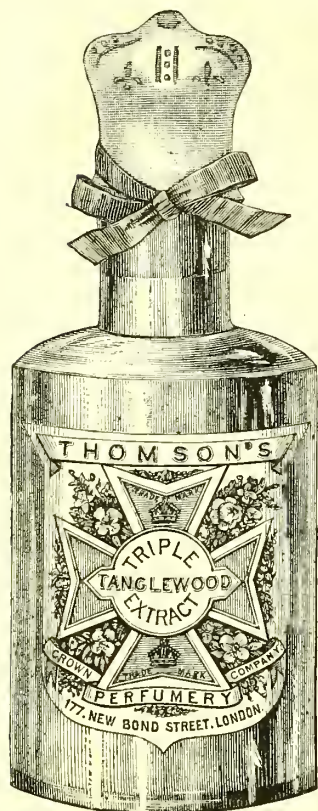
OPALINE FACE POWDER, 3/6 and 7/ per dozen packets; 15/ per dozen Boxes.

OPALINE CREAM, the Finest Preparation made, for the Hands, Arms, and Neck, 24/ per dozen bottles.

Mme. Adelina Patti writes, "Your Opaline Preparations are nice to use, perfectly harmless, and they produce a charming effect on the skin."

Indents may be forwarded through any English Commission Merchant or Drug House, and will receive careful attention. Send for Price List.

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,
NEW FAIRFIELD WORKS, OLD BAILEY, E.C.



RIMMEL'S NEW SANITARY APPLIANCES.



RIMMEL'S AROMATIC OZONIZER, a fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of *Ozone*, the great air purifier. Its clean and portable nature renders it far preferable to liquid disinfectants. It is in use in the principal Hotels, Clubs, and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4-oz. Tins, 1s.; 1-lb. Tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER WATER, or FLORIDA WATER, sprinkled on a pad hung up in the air, destroys bad smells and noxious effluvia in sick rooms, closets, &c. It is recommended also to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea. Price, 2s. 6d. and 5s. per Bottle; Pad, 1s.

RIMMEL'S AROMATIC OZONIZED CASSOLETTES, to carry in the pocket and preserve from infection, 6d.
N.B.—500 detailed prospectuses, containing certificates and testimonials, sent with name and address to every purchaser of 3 dozen Aromatic Ozonizer, 1s. size.

SOLD BY ALL CHEMISTS AND DRUGGISTS. THE USUAL ALLOWANCE TO THE TRADE.

EUGENE RIMMEL, PERFUMER TO H.R.H. THE PRINCESS OF WALES, 96 STRAND, LONDON.

THE CELEBRATED CAMBRIAN MEDICINE.

JONES' (TREMADOC) APERIENT AND ANTIBILIOUS PILLS.

The general test of HALF A CENTURY has now established the reputation of these PILLS, composed of rare and expensive Vegetable preparations, combined with a valuable **SNOWDONIAN HERB**, forming a MILD, LAXATIVE, TONIC REMEDY, superior to all other preparations as a PREVENTIVE AND CURE FOR ALL DISEASES RESULTING FROM A DISORDERED STATE OF THE STOMACH AND LIVER AND IMPURITY OF BLOOD, &c.

Sold by all the Wholesale Houses, and at the Depot, Tremadoc, North Wales. Retailled by all Medicine Vendors in every Town in the United Kingdom and the Continent, in Boxes, at 1s. 1d., 2s. 6d., and 4s. 6d. each.

WILLIAM GRAHAM CARR & SONS,

PHARMACEUTICAL CHEMISTS,

IMPORTERS AND MANUFACTURERS OF COD LIVER OIL,

BERWICK-ON-TWEED,

ESTABLISHED 1794.



OIL MADE DAILY ON THE PREMISES.

GOLD, SILVER, AND BRONZE MEDALS HAVE BEEN AWARDED TO OUR COD LIVER OIL AT THE EXHIBITIONS HOME AND ABROAD.

SQUIRE'S CHEMICAL FOOD

Syrup. Ferri Phosph. Comp. (Squire).

P. & P. W. SQUIRE, who have for many years been the SOLE AGENTS, have purchased the right and all particulars relating to the manufacture of

PARRISH'S CHEMICAL FOOD,

As prepared by the late Mr. EDWARD PARRISH.

This Tonic has stood the test of time, having been more generally prescribed for the last 20 years than any other preparation of the kind. It is most peculiarly suited for delicate children, not only from its bone-forming properties and agreeable taste, but also from the fact of its containing no poisonous ingredient, which might interfere with its prolonged administration.

To distinguish this preparation orders should be written
"Squire's Chemical Food."

SQUIRE, 413 OXFORD STREET, LONDON,

CORNER OF DUKE STREET, GROSVENOR SQUARE, W.

WHITE



WHITE

(REGISTERED TRADE MARK.)

We have much pleasure in informing the Trade that we are now in a position to supply **WHITE FOSSILINE** in any quantity at prices below.

WHITE FOSSILINE is a bland, odourless, and perfectly pure hydro-carbon ielly **of our own manufacture.** It forms a cheap basis for Ointments, Pomades, &c., and is much superior to any other, as it cannot become rancid. It is also unsurpassed in itself as a simple dressing for wounds, bruises, &c.

PRICE—1 lb. Tins, 1s. 8d.; 7, 14, and 28 lb. Tins, 1s. 4d.; 56 and 112 lb. Drums, 1s. 3d. per lb., to account.

SOLE MANUFACTURERS—

EVANS, LESCHER, & WEBB,
LONDON.

EVANS, SONS & CO.,
LIVERPOOL.

H. SUGDEN EVANS & CO., Montreal, Canada; and Boston, U.S.A.

BOURNE & TAYLOR'S RESPIRATORS.

No.	DESCRIPTION.	SHAPE.	RETAIL PRICE.			WHOLESALE PRICE.
			s. d.			£ s. d.
1.	The Shilling Respirator	Oval, each	1 0	..	per doz.	0 8 0
2.	Metallic, Cotton Velvet Pads	" "	2 0	..	"	0 12 0
3.	" Silk Velvet Pads	" "	2 6	..	"	0 18 0
3A.	Silver-plated Wire, Silk Velvet Pads	" "	2 6	..	"	0 18 0
4.	" " " "	" "	3 0	..	"	1 1 0
5.	" " " "	Square	4 0	..	"	1 8 0
5A.	" " " Without Ends	" "	3 6	..	"	1 4 0
6.	Silver-plated Wire, Elastic Silk Mouthpiece	" "	4 0	..	"	1 10 0
7.	Gold-plated " Silk Velvet Pads	" "	7 6	..	"	2 8 0
8.	Threefold Silver-plated, Velvet Pads and Silk Mouthpiece	" "	6 0	..	"	1 16 0
9.	Gold-plated, " " " "	" "	7 6	..	"	2 8 0
10.	The Aerial Respirator, Silver-plated, Ladies' "	Oval	5 0	..	"	1 10 0
11.	" " Gold-plated, " " " "	" "	6 0	..	"	2 2 0
12.	" " Silver-plated, Gents' " " " "	" "	6 0	..	"	1 16 0
13.	" " Gold-plated, " " " "	" "	7 6	..	"	2 8 0
	<i>(The Aerials may be had covered with black or drab.)</i>					
14.	Gold-plated Wire, full size	" "	7 6	..	"	2 8 0
15.	Gold Plates, full size	" "	7 6	..	"	2 8 0
16.	Orinaseal, Silver-plated Wire	Square	4 0	..	"	1 10 0
17.	Ladies' Miniature, Silver-plated	Oval	5 0	..	"	1 10 0
18.	" " Gold-plated " " " "	" "	6 0	..	"	2 2 0
19.	The Manifold Respirator, of variable power, containing six Metallic Plates, four of which are movable, Gold-plated	Square	10 6	..	"	3 12 0
20.	Ditto ditto ditto ditto	Oval	10 6	..	"	3 12 0
	<i>(The Manifold Respirator may be worn with or without plates A. and B.)</i>					
21.	Gents' full size, Silver-plated	" "	5 0	..	"	1 10 0
22.	" " Gold-plated	" "	6 0	..	"	2 2 0
23.	The Cotton-wool Respirator, Silver-plated	Orinaseal	5 0	..	"	1 16 0
24.	" " Gold-plated	" "	8 6	..	"	3 0 0
25.	" " " "	Oval	5 0	..	"	1 16 0
	<i>(As recommended by Professor Tyndall)</i>					

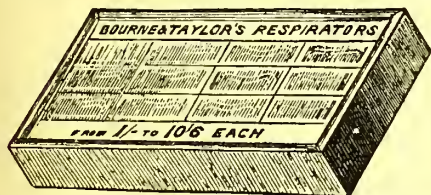
[illegible]

The following New Patterns have recently been added to Stock:—

No. 15A. A Cheap **Gold-plated OVAL Respirator**, to sell at 3s. 6d. **PRICE 30s. PER DOZEN.**

No. 25A. **Silver-plated OVAL Cotton Wool**, to sell at 4s. **PRICE 30s. PER DOZEN.**

The following assortment contains the leading patterns:—



No. 1 Case.

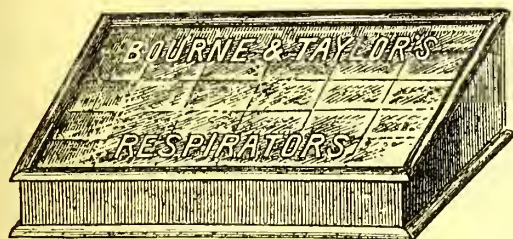
No. 1 Case—

Two each of Nos. 1, 2, 3, 4.

One „ „ 5, 8, 10, 12, 14, 15, 17, 18, 20, 21, 22.

Producing retail	£4 5 6
Cost	£2 6 8
Less 10 per cent.	0 4 8

Showing a **PROFIT** of £2 3 6



No. 2 Case.

No. 2 Case—

Six each of Nos. 1, 2, 3, 4.

Two „ „ 5, 6, 8, 10, 12, 17, 18, 21, 22.

One " " 7, 9, 11, 13, 14, 15, 16, 20, 28, 25.

Producing retail	..	..	..	..	..	..	£10 18 6
Cost .. .. .	..	..	..	..	..	..	£5 18 2
Less 10 per cent.	..	..	..	..	..	..	0 11 10

Showing a **PROFIT** of £5 12 2

With Orders amounting to £2 NET, we will send a Mahogany Glass-top Counter Case, with Hinged Lid, FREE OF CHARGE; and with Orders amounting to £5 NET, a Handsome Mahogany Counter Case (size 22 x 12 x 4), with Sloping Top, Hinged Back, and Sliding Tray.

Each Dozen Chest Protectors put up in a Glass Top Show Box.

BOURNE, JOHNSON & LATIMER,
35 CASTLE STREET, HOLBORN, LONDON, E.C.



CATALOGUE OF

DRUGGISTS' SUNDRIES



PATENT MEDICINES, &c.

SHOW CASES, SHOP FITTINGS

AND

SURGICAL INSTRUMENTS

MANUFACTURED AND SOLD BY

THOMPSON, MILLARD & CO.
LIMITED.

CURTAIN ROAD,
GREAT EASTERN STREET,
LONDON.

THE ORIGINAL

ARNICATED

WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,

A.D. 1846,

AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES—

Arnicated White Felt Corn Plasters.

Thin, 12 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 12 in box (original 1s. fancy boxes) 3/4	"
Thin, 1 gross in box ...	1/10 per gross.
Thick, 1 gross in glass-top box ...	3/0 "

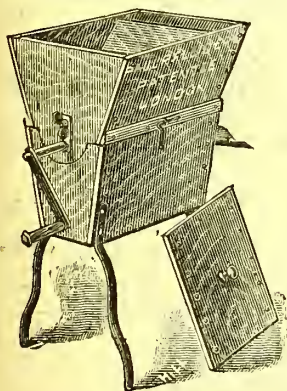
Arnicated White Felt Bunion Plasters.

Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 6 in box (original 1s. fancy boxes) 3/8	"
Large Thin, 1/2 gross in box ...	4/6 per gross.
Thick, 1/2 gross in glass-top box ...	6/0 "

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.

Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).

**PAUL PFLEIDERER'S
PATENT SIFTER**

Is the Cheapest and Simplest, while it is more Effective, more Easy to Handle and More Durable than others.

Suitable for Sifting every description of Powders. Standard size, to sift 20 cwt. of Flour per hour by hand, price £5 10s.

Always in stock at the Sole Manufacturer's—PATENTEE OF THE CELEBRATED

UNIVERSAL KNEADING & MIXING MACHINE

86 UPPER GROUND ST., BLACKFRIARS.

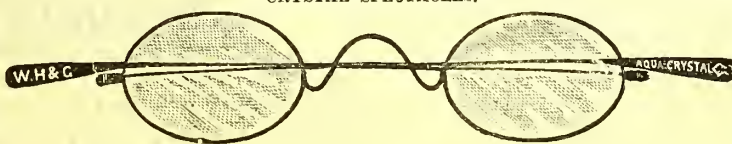
PAUL PFLEIDERER.

**WM. HERBERT & GODFREY'S
CELEBRATED AQUA CRYSTAL SPECTACLES**

(REGISTERED).

WM. HERBERT & GODFREY beg to draw the attention of Chemists and Druggists to their method of supplying their celebrated AQUA CRYSTAL SPECTACLES.

W. H. & G.'s Glasses are kept by most of the leading Chemists and Druggists all over the world. W. H. & G. supply their customers, free of charge, with Showcards for Windows, &c., Test Types and Optometer to assist in taking the correct



sight, Pamphlets on "Sight, and How to Preserve it," containing medical testimonials, &c., &c., and with the customer's name and address printed on the cover; also circulars, posters, &c., &c.

W. H. & G. only supply their goods on the following terms:—5 % off for Cash in ten days; 2 1/2 % off for Cash in three months; or half Cash to be paid in three months and balance in six months, net.

NO GOODS SENT OUT ON SALE OR RETURN.

For full particulars and Price Lists, apply to

{ **WM. HERBERT & GODFREY, 55a Bernard Street, Russell Sq., London, W.C.**

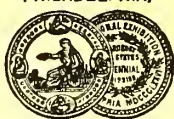
MELBOURNE EXHIBITION, 1881, SILVER MEDAL.



LONDON.
1882.
On the Jury.



VIENNA,
1873.



PHILADELPHIA,
1876.



PARIS, 1878.
Silver Medal.



SYDNEY, 1879.
Highest Award for Sponges.



SYDNEY, 1879.
1st Special Award for Brushes.

G. B. KENT & SONS' BEST ENGLISH MANUFACTURE BRUSHES.

ESTABLISHED
106 YEARS.

OFFICES: Great Marlborough Street, LONDON, W.
 FACTORIES: Bonner Road, Victoria Park, LONDON, E.

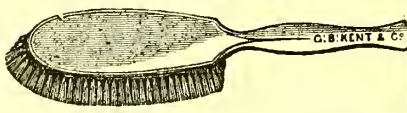
EMPLOYING
600 HANDS.

KENT'S HAIR BRUSHES.

SQUAB SHAPE.



SKITTLE SHAPE.

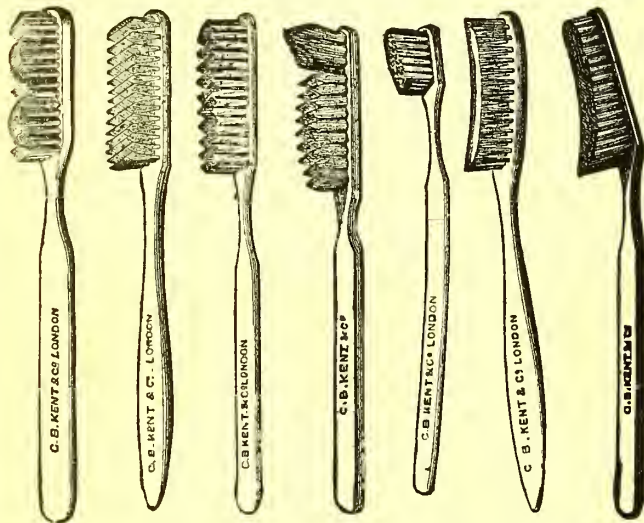


BALLOON SHAPE.



KENT'S TOOTH BRUSHES.

N.B.—Special Factories at Victoria Park are set apart for this one description of Brush.



THE NOVELTY TOOTH BRUSH.
TRIPLE CEMENTED AND EXTRA SECURE.
Depôt for America: 91 Fulton Street, NEW YORK.

			Price per doz.
First Quality	G.B. Kent & Co	London	6/6
Second Quality	Imperial	Quality	5/0
Third Quality	WARRANTED	LONDON	4/0
Fourth Quality	WARRANTED	SECURE	3/6
Fifth Quality	WARRANTED	SOUND	2/0
Badger Hair Tooth Brushes ..	..	4/6 6/0 8/0 11/0	per doz.
Children's " " ..	..	3/0 3/6 4/0	"
Tooth Brush Guards " ..	..	Metal, 2/3 Porcelain, 4/6	"
Japanned Wet Brush Holders ..	..	3/0 5/6 6/0 12/0	"

KENT'S NAIL BRUSHES.

ROACHED AND GROOVED.



CONCAVE



SENSIBLE

NAIL

OVAL PATTERN.



UNION PATTERN.



KENT'S CLOTH BRUSHES in WOOD or IVORY.
 KENT'S HAT BRUSHES in WOOD or IVORY.
 KENT'S FLESH BRUSHES, Handled or Webbed.
 KENT'S SHAVING BRUSHES in Badger Hair, &c., &c.

KENT'S FITTED LEATHER CASES of various descriptions.
 KENT'S HAND MIRRORS in Wood and Ivory.
 KENT'S COMBS in Ivory, Shell, Indiarubber, &c.
 KENT'S "NOVELTY" TOOTH BRUSH GUARD.
 (Telescope pattern, silver-plated.)

G. B. Kent & Sons' Catalogue of Prices for 1883 is now ready, copies will be forwarded on application.

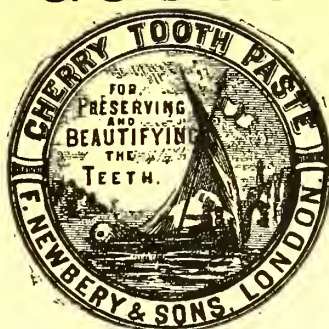
SPONGES.—At 11 Great Marlborough Street is a Sponge Room worth the inspection of the Trade.

ELEGANT! GOOD! SALEABLE!

NET TRADE PRICE:

3s. 6d. per doz.

AS LARGE AND AS PRETTY AS
ANY IN THE MARKET.



REDUCED FIGURE OF POT COVER.

NET TRADE PRICE:

3s. 6d. per doz.

F. NEWBERY & SONS,
1 King Edward Street, Newgate Street,
LONDON.

J. J. BELL & CO.'S SECRETE OIL and UNIQUE VEGETABLE EXTRACT (FOR THE HAIR).

1 KING EDWARD STREET, NEWGATE STREET, LONDON, E.C. : May, 1883.

By an Indenture dated 7th May, 1883, F. NEWBERY & SONS have become *SOLE PROPRIETORS* of the two Articles above named, and are prepared to supply the same as heretofore.

Net Trade Price for either Preparation ... Retail, 1s., 2s.; per doz., 7s. 9d., 15s. 6d.

F. NEWBERY & SONS
(ESTABLISHED A.D. 1746.)

Proprietors also of Berdoo's Triple French Essences, &c.; Brockedon's Patent (introduced A.D. 1842) Compressed Tablets of Pure Bi-carb. Potass, Pure Bi-carb. Soda, Chlorate Potass, and Nitro-carbonate Potass; Doughty's Voice Lozenges; Dr. James' Fever Powder; Dr. Steers' (Genuine) Opodeldoc and Camomile Drops, &c., &c.

HOP BITTERS CAUTION.

Our Preparation being duly Registered and Trade Marked under the Laws of Great Britain, and having been placed before the Public at great expense to us, we give notice that we shall fully protect our rights in every instance. Anyone making use of our Title, Labels, Bottles, or in any way attempting to trade on our reputation will be dealt with at once to the fullest extent of the law.

HOP BITTERS CO., London.

HOP BITTERS.

We guarantee the sale of Hop Bitters, and authorise you to do the same by your Customers. If at any time you are dissatisfied with them, please return what you have unsold in good condition, and we will remit you the amount paid for same.

HOP BITTERS CO.

Silver Medal, Paris, 1878.



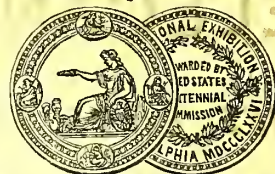
TRADE



MARK.

A.D. 1715.

Philadelphia, 1876.



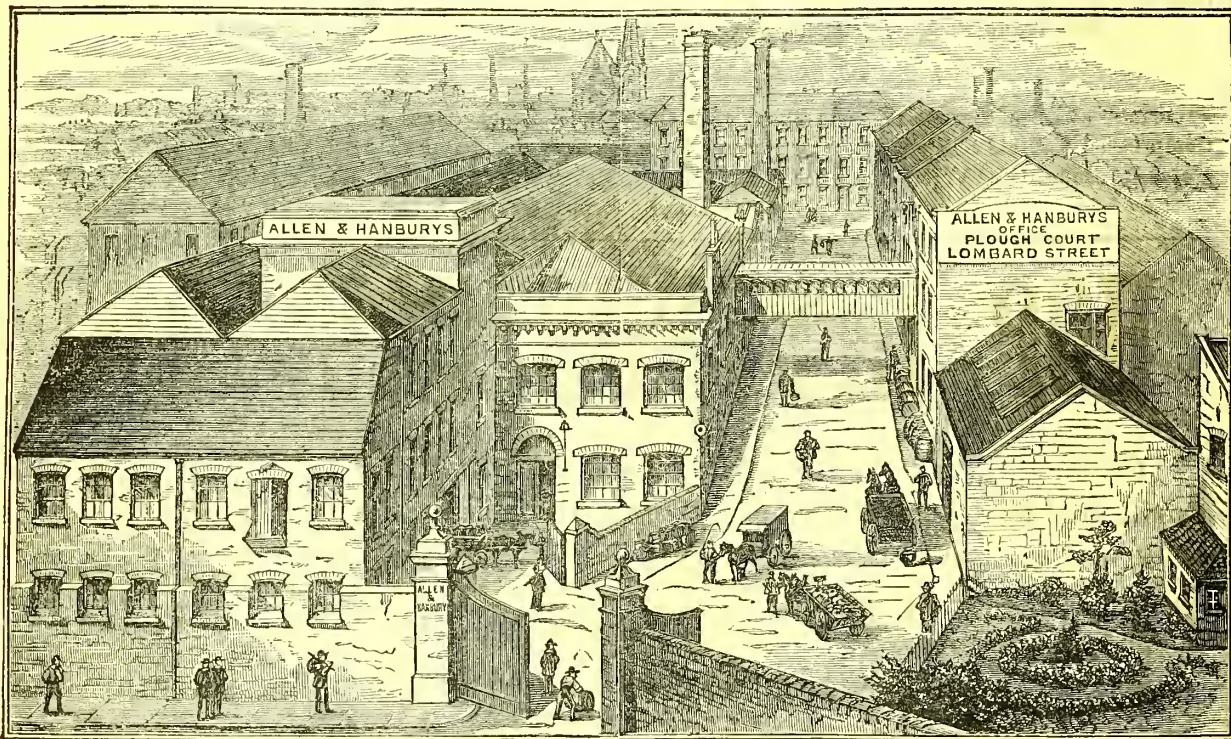
ALLEN & HANBURY'S,

WHOLESALE AND EXPORT

DRUGGISTS,

MANUFACTURING PHARMACEUTICAL & ANALYTICAL CHEMISTS,

SPECIAL MANUFACTURERS OF COD-LIVER OIL, MALT EXTRACT,
MEDICATED AND OTHER JUBUBES AND PASTILLES, ETC.



WORKS, BETHNAL GREEN, E.

Price List of Drugs, Chemicals, Pharmaceutical Preparations, and Specialties, free
on application.

Office: PLOUGH COURT, LOMBARD STREET,
LONDON.

Works: Bethnal Green, London; and Longav, Norway.

INDEX TO ADVERTISEMENTS.

- Acetic Acid**
Dunn
Aer & Min Wtrs
Eseulap
Apolinaris (Hunyadi)
Barnett & Foster (Fruit Champagne)
Beckett (Winterine)
Chemists' Aërated Water
Ellis (Ruthin)
Gallia
Hooper
Ingram & Royle
Jewsbury
Mills (various)
Schweppé
Taylor
Aer Water Plant
Barnett
Bratby & Hinchliffe
British Syphon
Bush (Foam Producer)
Davenport
Favarger
May Davis
Stevenson (Foam Producer)
Tyler, Hayward
Wilcocks, N. G.
Agencies Abroad
Aickin (Auckland)
Ball, Holson & Co.
Bathgate (Calcutta)
Davison, A. (Kimberley, S. Africa)
De Caycedo (U.S. Colmba)
Evans, H. S. (Montreal)
Felton (Melbourne)
Fongera & Co. (New York)
Heynes, Matthews & Co. (Cape Town)
Kemphorne (Auckland, Dunedin)
Lennon (Port Elizabeth)
Mason (Calcutta)
Plomer (Simla & Lahore)
Prosser (Sydney)
Rennard (Bombay)
Rocke (Melbourne)
Roberts (Paris)
Symes (Simla)
Almanacs
Cassell & Co.
Davis
Fellwell
Kay
Silverlock
Analysts
Corbyn
Annatto
Fullwood
Apparatus
Darton (Thermomtra, &c.)
Metz, P. (Glass & Porcelain)
Morgan (Crucibles)
Orme (Scientific)
Parnall & Sons (Balances)
Pleiderer (Sifters, Mixers)
Troemner (Scales and Weights)
Whitall & Tatum
Atomisers
Codman
Baking Powder
Goodall
Horsford
Bandages
Bailey, W. H., & Son
Davidson Rubber Co.
Lindsay
Bank & Building Society, Birkbeck.
Books
Bailliere (Ince's Grammar, &c.)
Churchill (Various)
Dobell, Dr., Works by
Keene (Compan. Brit. Hom. Phar.)
Kilner (Modern Pharm.)
Murray (Kirke's Physiology)
Robinson (Receipts)
Skuse (Confectioner)
Smith, J. (Aërated Waters)
Whitla (Practical Pharm.)
Bottles
De Luca
Hearn
Kilner
Lynch
Pothe
Toozood
Vullet
Whitall & Tatum
See **Stoppers**
Boxes
Arundel (Parcels Post)
Ayrton & Saunders
Crowland (Cardbox makers)
Savar (Parcels Post)
Brandy
Export Co.
- Brushes**
Ashworth
Kent
Maw, Son & Thompson
Metz (Paint)
Wilkinson (Paint)
Camphor
May
Murray
Capsules
Betta & Co. (Metallic)
Christiani (Medicinal)
Denoud
Durrant (Medicinal)
Gabriel & Troke (Horseballs)
Planten (Medicinal)
Carbolic Acid
Zimmermann (Graessers)
Castor Oil
Wyley
Harker, Stagg & Moss
Allen & Hanbury
Cautions
Sussex Drugs
Burroughs, Wellcome
Cement
Footikes
Kay
Chalk (Precip)
Levermore
Changes
Kay-Hornby
Charcoal
Coignet (Animal)
Cheken
Wyley
Chemicals
Forster
Howards & Sons (Pharmaceutical)
May
Newton
Rith (Verdigris)
Smith, T. & H.
Typle & King
Whiffen
Zimmermann
Chest Protectors
Bourne, Johnson
Lynch
Maw
Pattison
Savar
Chinolino
Zimmermann
Chlorodyne
Davenport
Gibson
Towle
Twemlow
Chloroform
Duncan
Macfarlane
Smith
Zimmermann
Cigarettes
Beynon & Stocken
Cocoa and Chocolate
Cadbury
Fry's Malted
Phillips & Co.
Van Houten
Cod Liver Oil
Allen & Hanbury
Baker, J. C., & Co. (Emulsion)
Carr, Graham
Harker, Stagg & Moss
Scott & Bowne (Emulsion)
Southall Brothers
Woolley
Wyley
Coffee
Evans (Conroy's Malt)
Phillips & Son
Confectioners
Gibson
Skuse (Handbook)
Corn Cures
Faulkner
Hargreaves
Robinson
Savar
Seabury
Wells, E. S.
Young
Crucibles
Morgan
Dentistry
Buck (Lessons)
Smale (Stoppings)
White, S. S. (Materials)
Disinfectants
National Chemical Comp.
Sanitas
Shilton (Affinitas)
- Dentifrices**
Barton
Beddard
Bourne & Johnson
Darling (Coffin's)
Evans
Jewsbury
Maw
Newbery (Cherry Paste)
Ruspin
Sutton
Thompson
Woods
Dog Biscuits and Dog Medicines
Spratt
Druggist's Sund
Bourne
Evans and Sons
Lynch
Maw
Requa and Wetmore
Savar
Thompson, Millard
Dyes
Sands Manufacturing Co.
Wells, Richardson & Co.
Earthen Goods
De Luca
Morgan
Pothe
Toozood
Eau de Cologne
Farina, J. M., No. 4
Farina, J. M. (Gegengutber)
Electric Appar
Darton (Bell)
D'Oor (Light and Battery)
Enemas
Davidson Rubber Co.
Evans, Sons
Ingram
Lawrence
Savar
Essences (Fruit and Soluble) & Essential Oils
Bratby & Hinchliffe
Burgoyne
Bush (Lemons, &c.)
Charras
Felton (Eucalyptus)
Frattelli
Haensel
Harker, Stagg & Moss
Hay
May and Baker
Raynaud (Lavender, &c.)
Stevenson and Howell
Symes (Lavand.)
Woolley (Sandal)
Wyley (Peppermint)
Ethers
May & Baker
Robbins
Extract of Meat
Australian (Rarmoric)
Brand
Corbyn (Valentine)
Kreochyle
Liebig Co.
Mottershead (Benger's)
Nelson
Rigaud (Peptones)
Feeding Bottles
Bourne
Hearn
Kilner
Maw
Filtering
Lipscombe (Filter)
Maignen (Filtre Rapide)
Palma (Drawn Glass)
Silicated Carbon
Fly Killers
Cooper
Helliard
Mather (Papers)
Foam Producers
Bush
Stevenson and Howell
Food (Infants' and Invalids')
Brand
Jensen (Peptones)
Kreochyle
Mottershead
Nestle
Ridge, Dr.
Savory
Formulae
Brooks
Robinson
Fuller's Earth
Chubb
Mather
Mumford
Ginger Ale
Bingley
Cartell
Harston
Hay
Mills
Ross
- Gelatine**
Coignet
Ginger Essence &c
Fisher
Goodall (Beer Powders)
Haensel
Hay
Stevenson & Howell
Gloves, Bath &c
Caudron
Glue
Coignet
Glycerine
Orth
Schmedes (Sarg)
Zimmermann
Granular Preparations
Bates
Guttapercha
Duncan
Stevens
Hair Preparations
Chesbrough
Evans, Sons
James (Pomade)
Robare (Auroline)
Rogers (Lotion)
Savar
Herbalists
Allaire Woodward
Butler, McCulloch
Eisner & Mendelssohn
Peck & Velsor
Homœop Medcns
Butcher
Conyngnam (Wafers)
Leath
Thompson and Capper
White and Lansdale (Inte Gould)
Hypodermic Injections.
Huggett
Hypophosphites
Forster & Gregory
Typle & King
Ice
Harrison
Inhalers
Field (Pocket)
Maw
Ink
Bewley (Drapers')
Bond's Daughter (Mark)
Bowness (Writing)
Duncan
Maw (Marking)
Murphy (Marking)
Insecticides
Bourne (powder)
Helliard
Steiner
Insurance
National Life
Ketchup
Farrow
Kneading
Pleiderer
Leeches
Butler, McCulloch
Fitch
Licorice
Mellor & Rittenhouse
Lime Juice
Montserratt (see Evans)
Linseed
Colthurst
Kemp
Woolley
Wrangham
Lozenges
Allen & Hanbury
Craven
Gibson
Towle (Chlorodyne)
Magnesia
Bates
Dinneford
Henry
Murray
Malt Extracts
Allen & Hanbury
Burroughs
Evans, J.
Fry's Cocoa
Harker, Stagg & Moss
Maltine
Wyley
Match Cases
Dangerfield
Materia Medica
Southall (Collections)
Measures, Grad
Toozood
- Medicine Chests**
Day, Son & Hewitt
Mixing Machines
Bracher
Pleiderer
Morphia
Macfarlane
Smith, T. & H.
Mustard
Finch
Metz (leaves)
Musk
Symes
Ointment Bases
Chesbrough (Vaseline)
Evans, Sons (Fossiline)
Ewen (lard)
Wyley (Cerinat)
Paints
Bessemer (Gold)
Colthurst
Jackson
Wilkinson
Wrangham
Pancreatino
Fairchild Bros.
Paper &c
Cameron (Cabinet)
Patent Medicines
Atkinson (Lentil Preserv)
Baker, H. & Co. (Pills)
Barclay (Quilana)
Bastin (Bainmoline)
Beecham
Bell
Burt (Vocaline)
Clarke (Tikheel)
Edwards (General and Roche's Embrocation)
Evan, S. (Styptic)
Feltwell (Balm of Aniseed)
Fenuings (Powders)
Geldhart (Galactagogue)
Heyman (Horchound)
Heald (Whooping Cough)
Ieyman (Kola)
Himrod Manufacturing Co.
Hoge's Horehound Houey
Holloway (Pills)
Holt (Whooping Cough)
Hop Bitters
Horsford (Acid Phosphates)
Jones (Aperient Pills)
Keymer (Sherman's Bitters)
King (Hop Bitters)
Kirk (Phosphodyne)
Lincoln (Clarke's Mixture)
Llewellyn (Elixir Phosphorus)
Maish (Liver pills)
Morrison (Dysomania)
Newbery (Tooth paste, Bell's oil)
Osborne (Drops)
Peck & Velsor
Pritchard (Teething Pow)
Quick (Sweating's Toothache Liment)
Reynolds (Gout)
Roberts (Foreign)
Ruspin (Styptic, &c.)
Sanger (Widow Welch)
Smith (Pills)
St. Dalmas
Stedman (Fever Powders)
Sussex Drug Co.
Thompson, Millard
Tomlinson (Hepaticus)
Wells, E. S.
Woodcock (Pills)
Pepsine &c
Bullock
Fairchild Bros.
Gabriel & Troke
Hotot
Jensen (Crystallised)
Mottershead
Rigaud (Peptones)
Zimmermann
Perfumery and Fancy Soaps
Bristow
Burroughs
Chesbrough (Vaseline)
Crown Perfumery Co.
Evans, Sons
Greenhill
Hovenden
Lynch
Maw
Newbery
Norina
Osborne Garrett
Paton (Hygienic Soap)
Ricksecker
Rimmel
Robinson Bros.
Savar
Schmedes (Sarg's)
Violet (Soap)
West
Whitaker
Woolley & Sons
- Pens**
Gillott
Macuiven
Petroleum
Cassell, Smith & Co.
Colthurst
Pharm Preps
Allaire Woodward
Allen and H.
Bais Bros.
Barron
Burgoyne
Burroughs
Corbyn
Duncan
Evans (Fluid Extracts)
Fletcher (I-liquors)
Gabriel & Troke
Giles
Heathfield
Hewlett
Keith (Cone Tincture)
Milbau (Elixir Calisaya)
Parke Davis
Rigaud
Scott and Bowne
Squire (Chemical Food)
Stearns & Co.
Synes
Twemlow (Somnoline)
Whiffen
Woolley
Wright, Layman
Wyley
Phosphorus &c
Coignet
Newton (Acids and Salts)
Savory (pills)
Pill Machines
Wells, C. (Coater)
Pills (Coated &c)
Allaire Woodward
Burroughs
Hampton
Parke Davis
Stearns
Warner (Newbery)
Wyley
Plasters
Mather
Maw
Savar
Seabury
St. Dalmas
Podophyllin &c
Keith
Polishing
Baumgartner
Bradley
Brown
Chesbrough
Oakley
Pickering
Savar
Printing
King, W. R. (Handbills)
Lambe, J. B.
Quinine
Howards & Sons
Hogden (Pelletier's Capsules)
Whiffen
Respirators
Bourne, Johnson
Maw
Savar
Salicine
Smith, T. and H.
Whiffen
Salicylic Acid
Burgoyne
Zimmermann
Salines
Lampough
Sauces
Evans, Sons
Goodall
Lazenby
Scales & Weights
Troemner
Schls of Phrmcy
Central School
Edinburgh School
Edwards
London Homœopathic
Hospital
Manchester College
Owens College
South London
School of Pharmacy
Tully
Westminster College

Seidlitz Powders	Pain (Soft)	Strychnine	Tin Canisters	Verdigris	Wholesale and
Chuhh Stedman	Chiswick Colthurst	Whiffen	Williamson	Rith, A.	Export Druggists
	See <i>Perfumery</i>	Suppositories	Trusses	Vermine Killers	Baile
Shaving	Spectacles	Hall & Ruckel	Bailey Haywood Lindsey Penfield & Co. Philadelphia S. Co. Savar Seecley	Barber Battie Bigger Hollars Hunter Sanford (Rat Poison) Steiner Wells	Burgess Burgoyne Corbyn Eisner & Mondelsohn Evans, Lecher Evans, Sons Gabriel & Troke Harker, Stagg & Moss Hewlett Lennon, B. G. & Co. Milhaud's Son Peck & Velsor Symes Woolley Wyleys
Shop Fitters	Spirit, Pure and Methylated	Surgical	Valerianates	Veterinary	Wines and Spirits
Bowling Bygrave Curtis, J. & Co. Howlett Lemaître Tomlinson Treble Yates	Burrough (Pure & Meth Harvey and Co. Jones (Methyl.) Smith (Pure)	Syphons	Typke & King	Calvert Chesbrough Co. Cooper Day, Son & Hewitt Evans, Sons (Fossiline) Foster (Loup Pill) Gabriel Gregory (Vesico-Sudorific) Helliars James, R. J. James, S. Kitson (Pig Powders) Spong (Pig Powders) Spratt Taylor, Thos.	Burrough Goodall Ingram Robinson
Sheep Dip	Sponge	Syringes	Valuers	Waters, Distd &c	Wood Stains
Cooper	Bourne and Johnson Creswell Lynch Marks, H. Peterson	Williams, E. C. (Glass)	Brett Gadd Hunt, A., & Co. Orridge Taylor and Co. Tomlinson Tripper	Butler, McCulloch Robinson (Conc.) Raynaud (Rose, Orange Fl)	Jackson
Sifting Machine	Starch	Thermometers	Varnishes	Zinc Oxide	
Pfiederer	Harrop (Glaze) Mumford (Powder)	Darton	Colthurst Jackson Wilkinson		
Smelling Salts	Stoppers	Tea	Violet Powders		
Bush, W., & Co. (Allchin's)	upier, Lever ("Spring Lock")	Great Tower Street Kangra Valley (Indian) Phillips and Co. Rou Walker & Dalrymple	Chuhh Rimmel Savar		

Asculap Bitter Water Co.	13	Davis, J.	10	Jewsbury and Brown 21, 56	Richards, J. M. 87
Al-Kou, G.	109	Day, Son and Hewitt 75	109	Jones 32	Ricksecker 103
Allaire, Woodward and Co.	131	De Luca, G. V.	131	Jones and Mason 18	Ridge, Dr., and Co. 64, 85
Allen and Hanbury 53, 122	122	Denoual, J.	125	Kangra Valley Tea Association 14	Ridgway and Jussart 110
Allen, R. H.	70, 88	Dinnerford and Co.	114	Kenner Brothers 9	Rimmel, E. 32
Apollinaris Co.	28	Dobell, Dr.	7	Keene and Ashwell 95	Rith, A. 41
Araudel and Marshall 28	28	Duncan, Flookhart and Co.	112	Kelth, B., and Co. 95	Robbins and Co. 114
Ashworth Bros.	54	Dunn and Co.	127	Kemp, W., and Son 38	Roberts and Co. 3
Assistants Wanted 29	29	Dupier-Lévesque, Co.	10	Kempthorne, Prosser and Co. 108	Robinson, B. 102
Assistants Waiting Situations 124	124	Edinburgh School of Medicine 7	7	Kerner Chemical Co. 130	Robinson, G. H. 21
Atkinson and Barker 124	124	Edwards and Son 30	30	Kilmer Brothers 99	Rocks, Tompsett and Co. 108
Australian Mast Co.	28	Eisner and Mendelson 59	59	Kilmon, H. 7, 10	Rogers, W. 56
Aytton and Saunders 28	28	Edwards and Son 30	30	Kilmon, H. 7, 10	Ross, W. A., and Co. 56
Baker, J. C., and Co.	92	Edwards and Son 30	30	Kilmon, H. 7, 10	Rous 78
Bakley, W. H., and Co.	54	Edwards and Son 30	30	Kilmon, H. 7, 10	Royal College of Science, Ireland. 8
Baillière, Tindall and Co.	110	Edwards and Son 30	30	Kilmon, H. 7, 10	Ruspi, Chevalier 20
Baile Brothers and Co.	110	Edwards and Son 30	30	Kilmon, H. 7, 10	Sanger, J., and Son 128
Bail, Hobson and Co.	129	Edwards and Son 30	30	Kilmon, H. 7, 10	Saugstad and Co. (Limited) 514
Barber, T.	76	Edwards and Son 30	30	Kilmon, H. 7, 10	Savory and Moore 82
Barrett and Foster 54	54	Edwards and Son 30	30	Kilmon, H. 7, 10	Sanford and Son 77
Barron, Squire and Co.	112	Edwards and Son 30	30	Kilmon, H. 7, 10	Schmedes and Co. 23
Barton Bros.	21	Edwards and Son 30	30	Kilmon, H. 7, 10	School of Pharm., Bloomsbury Sq. 514
Rates and Co.	78	Edwards and Son 30	30	Kilmon, H. 7, 10	Schweppe's Mineral Waters Text 79
Battle, J. R.	78	Edwards and Son 30	30	Kilmon, H. 7, 10	Seahury and Johnson 139
Baumgartner and Co.	14	Edwards and Son 30	30	Kilmon, H. 7, 10	Seely 136
Beckett, W.	21	Edwards and Son 30	30	Kilmon, H. 7, 10	Shilton, A. J. 73
Beddard, J.	21	Edwards and Son 30	30	Kilmon, H. 7, 10	Silverlock 10
Beecham, T.	129	Edwards and Son 30	30	Kilmon, H. 7, 10	Skuse, E. 20
Beil, W., and Co.	129	Edwards and Son 30	30	Kilmon, H. 7, 10	Smale Bros. 21
Bewley and Draper 82	82	Edwards and Son 30	30	Kilmon, H. 7, 10	Smith and Gihh 12
Beynon and Stoeken.	78	Edwards and Son 30	30	Kilmon, H. 7, 10	Smith, J. G., and Co. 114
Biggs 17	17	Edwards and Son 30	30	Kilmon, H. 7, 10	Smith, W. F. 128
Biggs and Oliphant 56	56	Edwards and Son 30	30	Kilmon, H. 7, 10	Snowden, Wm. 96
Bingley, J.	56	Edwards and Son 30	30	Kilmon, H. 7, 10	Southern Brothers and Barclay 82
Birkbeck Bank 83	83	Edwards and Son 30	30	Kilmon, H. 7, 10	Spicer, London School of Pharmacy 8
Boud's Daughter 83	83	Edwards and Son 30	30	Kilmon, H. 7, 10	(W. Baxter, secretary) 8
Bourne, Johnson and Latimer 35	35	Edwards and Son 30	30	Kilmon, H. 7, 10	Spong and Son 77
Bowling and Govier 44	44	Edwards and Son 30	30	Kilmon, H. 7, 10	Spratt 74
Bowness 44	44	Edwards and Son 30	30	Kilmon, H. 7, 10	Squire, F. and P. W. 53
Bracher and Co.	17	Edwards and Son 30	30	Kilmon, H. 7, 10	Stearns, J. P., and Co. 76
Bradley and Bourdais 60	60	Edwards and Son 30	30	Kilmon, H. 7, 10	Steiner and Co. 76
Brand and Co.	60	Edwards and Son 30	30	Kilmon, H. 7, 10	Stevens, P. A. 51
Brath and Hinehillife 53	53	Edwards and Son 30	30	Kilmon, H. 7, 10	Sussex Drug Co. 1, 135
Brett, F. J.	53	Edwards and Son 30	30	Kilmon, H. 7, 10	Sutton, O., and Co. 122
British Syphon Co.	50	Edwards and Son 30	30	Kilmon, H. 7, 10	Thompson, Millard and Son 30
Brooke, T.	14	Edwards and Son 30	30	Kilmon, H. 7, 10	Symes and Co. (Skins) 109
Brown, B. F., and Co.	14	Edwards and Son 30	30	Kilmon, H. 7, 10	Taylor and Co. 49
Buck, P.	25	Edwards and Son 30	30	Kilmon, H. 7, 10	Taylor, T. and P. J. 57
Burgess, Willows and Francis 120	120	Edwards and Son 30	30	Kilmon, H. 7, 10	Thompson and Capper 133
Burgoyne, Burdighes and Co.	118	Edwards and Son 30	30	Kilmon, H. 7, 10	Thompson, Millard and Son 30
Burrough, J.	81	Edwards and Son 30	30	Kilmon, H. 7, 10	Tomlinson and Hayward 74
Burroughs, Wellcome and Co.	81	Edwards and Son 30	30	Kilmon, H. 7, 10	Tomlinson, R. 47
Bush, W., and Co.	24	Edwards and Son 30	30	Kilmon, H. 7, 10	Tomlinson, T., and Son 48
Bush, W. J., and Co.	59	Edwards and Son 30	30	Kilmon, H. 7, 10	Toogood, W. 180
Businesses Wanted, & for Disposal 614	614	Edwards and Son 30	30	Kilmon, H. 7, 10	Treble, G., and Son 124
Butcher, W., and Co.	124	Edwards and Son 30	30	Kilmon, H. 7, 10	Tripper 43
Butler, McCulloch and Co.	124	Edwards and Son 30	30	Kilmon, H. 7, 10	Troemer, Henry 96
Bygrave, J. and W.	46	Edwards and Son 30	30	Kilmon, H. 7, 10	Tully, J. 122
Cadbury 141	141	Edwards and Son 30	30	Kilmon, H. 7, 10	Tyler, Hayward and Co. 68
Caivers, J. H.	77	Edwards and Son 30	30	Kilmon, H. 7, 10	Type and King 110
Cantrell and Cochrane 85	85	Edwards and Son 30	30	Kilmon, H. 7, 10	Vallat, L. 53
Carr, W. G., and Sons 32	32	Edwards and Son 30	30	Kilmon, H. 7, 10	Van Houten 78
Cassell and Co. (Limited) 10	10	Edwards and Son 30	30	Kilmon, H. 7, 10	Walker and Dalrymple 69
Cassell, Smith and Co.	106	Edwards and Son 30	30	Kilmon, H. 7, 10	Warner and Co. 43
Cassedy, G. de, and Co.	92	Edwards and Son 30	30	Kilmon, H. 7, 10	Wells and Richardson Co. 100, 101
Central School 8	8	Edwards and Son 30	30	Kilmon, H. 7, 10	Wells, C. C. 102
Charras 62	62	Edwards and Son 30	30	Kilmon, H. 7, 10	Wells, E. S. 104, 105
Chemists' Aerated Waters Assoc.	57	Edwards and Son 30	30	Kilmon, H. 7, 10	Westminster College 24
Chemists' Ball 13	13	Edwards and Son 30	30	Kilmon, H. 7, 10	Whiten, T. 118
Cheshbrough & Manufacturing Co.	4	Edwards and Son 30	30	Kilmon, H. 7, 10	Whitall, Tatum and Co. 97
Chiswick Soap Co.	10	Edwards and Son 30	30	Kilmon, H. 7, 10	White and Lansdale 130
Carlton 124	124	Edwards and Son 30	30	Kilmon, H. 7, 10	Whitlock and Gross 44, 52
Chubb, J. C., and Co.	18	Edwards and Son 30	30	Kilmon, H. 7, 10	Wilkinson, Heywood and Clark 15
Clarke, H., and Co.	128	Edwards and Son 30	30	Kilmon, H. 7, 10	Williams 130
Colinet and Co.	14	Edwards and Son 30	30	Kilmon, H. 7, 10	Williamson and Sons 17
Colhurst and Harding 80	80	Edwards and Son 30	30	Kilmon, H. 7, 10	Woods, A. P., and Co. 26, 55
Condron, E.	24	Edwards and Son 30	30	Kilmon, H. 7, 10	Woolley, Sons and Co. 26, 55
Coyngham and Co.	134	Edwards and Son 30	30	Kilmon, H. 7, 10	Wrangham, R. 140
Cooper, William 74	74	Edwards and Son 30	30	Kilmon, H. 7, 10	Wright, Layman and Co. 119
Corby, Stacey and Co.	117	Edwards and Son 30	30	Kilmon, H. 7, 10	Wyleys and Co. 119
Cox and Co.	7	Edwards and Son 30	30	Kilmon, H. 7, 10	Yates, W. G. 37
Craven, M. A., and Son 7	7	Edwards and Son 30	30	Kilmon, H. 7, 10	Yates, W. G. (Proprietor) 37
Creswell and Co.	25	Edwards and Son 30	30	Kilmon, H. 7, 10	Zimmermann, A. and M. 121
Croftland, W.	82	Edwards and Son 30	30	Kilmon, H. 7, 10	
Crown Perfumery Co.	82	Edwards and Son 30	30	Kilmon, H. 7, 10	
Curtis and Son 46	46	Edwards and Son 30	30	Kilmon, H. 7, 10	
Darling, W.	17	Edwards and Son 30	30	Kilmon, H. 7, 10	
Darton, F., and Co.	11	Edwards and Son 30	30	Kilmon, H. 7, 10	
Davenport and Co.	125	Edwards and Son 30	30	Kilmon, H. 7, 10	
Davies, J. T.	125	Edwards and Son 30	30	Kilmon, H. 7, 10	
Davidson Rubber Co.	98	Edwards and Son 30	30	Kilmon, H. 7, 10	

"SOMETHING ABOUT PILLS."

DEAR SIR,—An experience of more than a quarter of a century has served to convince us that Sugar is the only material with which to coat a pill properly. We believe, and are confirmed in this belief by many facts brought to our notice, that failures in expected results are due to the use of gelatine-coated pills and sugar-coated pills not properly prepared. We have devised a method by which our pills are coated with sugar while the pill is in a soft condition, with no direct application of heat and with no sub-coating.

Many so-called sugar-coated pills are coated with combinations of Terra-Alba, Chalk, or Magnesia, and a sub-coating of shellac to prevent staining. Our pills are coated with a quickly soluble coating of sugar only.

Some of the reasons for preferring sugar as a coating over gelatine are :—

First : Sugar is more soluble than gelatine or glue.

Second : With our cold process no direct application of heat is used. To coat a pill with gelatine, it must be dipped into a hot solution at a heat necessary to keep the gelatine fluid.

Third : Gelatine is incompatible with certain foods, also fruits or wines containing Tannin, by which it is converted into a condition the basis of leather. Sugar is not incompatible with any food or condition of the system.

Fourth : Gelatine becomes exceedingly hard in time : sugar, on the contrary, attracts moisture, being hygroscopic. Pills coated with sugar get softer by age, rather than harder.

Fifth : Sugar dissolves evenly from the surface of the pill. A gelatine-coated pill lies in the stomach until the coating bursts. Throw a sugar-coated pill into cold water and see how soon the coating dissolves ; try this with a gelatine-coated pill, giving it the advantage of hot water : see how long it takes the coating to swell and burst.

A selected list of WM. R. WARNER & Co.'s Soluble Sugar-Coated Pills is now in stock with many of the leading druggists, as physicians frequently prescribe or order them, thus ensuring freedom from disappointment in effects desired.

Respectfully yours,

WM. R. WARNER & Co., Chemists.

N.B.—The following letter has been received from a prominent Physician :—

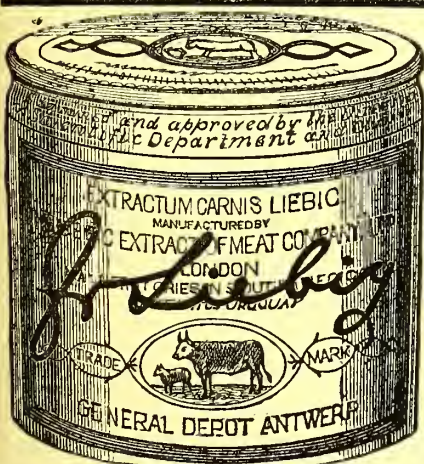
DEAR SIRS,—“An ill-founded prejudice led me to use gelatine-coated pills ; but I am free to acknowledge, as the result of experience, the more ready solubility of sugar-coated pills as prepared by you.”

BRITISH DEPOT:

F. NEWBERY & SONS (ESTABLISHED A.D. 1746),
1 King Edward Street, Newgate Street, LONDON, E.C.

LIEBIG COMPANY'S EXTRACT OF MEAT

AN INVALUABLE AND
PALATABLE TONIC FOR
INVALIDS.



*Peculiarly efficacious in all cases of
Debility and Weak Digestion.*

J. Liebig
TRADE MARK

CAUTION.—Inferior substitutes being in the market (sometimes accompanied by misleading analyses and names), Purchasers must insist on having the Liebig Company's Extract. For flavour and clearness is pronounced by all competent authorities to be the best.

N.B.—Genuine ONLY with fac-simile of Baron Liebig's Signature, in Blue Ink, across Label.

ADDRESS CARDS OF
MANUFACTURERS AND IMPORTERS OF SPECIAL PRODUCTS
USEFUL TO CHEMISTS AND DRUGGISTS.

RHENISCH BRANDY.

Warranted free from any artificial essence. Delicate aroma and pure taste.
 Considerably cheaper than French Brandy.

(See THE CHEMIST AND DRUGGIST, Oct. 14, 1882, page 457.)

**EXPORT COMPAGNIE FÜR DEUTSCHEN COGNAC,
 COLOGNE.**

Agents for England and Colonies, F. KRAYN & CO., 11 Leadenhall Street,
 London, E.C., to whom apply for samples.

HEINRICH HAENSEL, PIRNA a/d ELBE, SAXONY,

Manufacturer of ESSENTIAL OILS and ESSENCES.

SPECIALITIES:

CONCENTRATED ESSENTIAL OILS, known as Heinrich
 Haensel's Patent Essential Oils; **LEMON, ORANGE PEEL, &c.**,
 all 30 times stronger, bulk for bulk, than the ordinary Essential Oils.

VERDIGRIS,

In Cakes, Balls, Powder and Crystals. Purity Guaranteed.

CREAM OF TARTAR.

**ADOLPHE RITH, MANUFACTURER,
 MONTPELLIER AND NARBONNE.**

TELEGRAPHIC ADDRESS: RITH, MONTPELLIER (FRANCE).

N. G. WILCOCKS' SODA-WATER MACHINE,

To make all the aerated drinks; 100 dozen per day large bottles of highly-
 charged gaseous water; with the recipes and directions; with machine
 on Wilcocks' easy terms (£1 15s. monthly for two years); comprises
 machine in iron frame, gauges, lead generator, copper gas-holder in oak
 tub, corking rack for corked bottles, "Eclipse" filling machine for patents,
 all pipes fitted in working order.

Particulars, write to N. G. WILCOCKS, BATH.



ASSAY FURNACES, &c. THE MORGAN CRUCIBLE CO.,

Sole Manufacturers of

**MORGAN'S and SALAMANDER CRUCIBLES,
 BATTERSEA, LONDON, S.W.**

All kinds of Crucibles in Plumbago, Clay, &c.,
 Single and in Nests.

Muffles, Scorifiers, Porous Battery Cells, &c., &c.

Read "Assay Notes" in this Journal, April 15, 1883.

SATISFACTION GUARANTEED. CORRESPONDENCE SOLICITED.

INK

I offer a perfect **BLUE-BLACK
 WRITING INK** in bulk. It flows freely
 from the pen; does not corrode steel; never
 deposits; becomes instantly jet black. It is
 carefully manufactured, and there is nothing
 better for Schools and ordinary Office work.
It is very cheap. Wholesale Buyers please send
 for sample and quotations.

WILLIAM BOWNESS, Workington.

SPONGE.

M. PETERSON & CO., Importers,

66 SOUTH JOHN STREET,

LIVERPOOL.

For Home, Foreign, and Colonial Markets.
Wholesale only.

IMPORTANT TO CHEMISTS, WHOLESALE DRUGGISTS, &c.

WILLIAM MATHER,
DYER STREET, CHESTER ROAD,
MANCHESTER,

Manufacturer of every description of Plain and Fancy Cardboard Boxes,

Begs to intimate that he has made a complete extension of the Cardboard Box Manufacturing Business, carried on at his Establishment for a number of years, and, having adopted the latest improvements in Machinery, &c., he is in a position to execute all Orders on the shortest notice, and at the lowest possible prices.

PLAIN, SLIDE, AND SHOULDERED BOXES AS USED FOR
CASTOR OIL,

EXTRACTS,

HAIR OILS,

TOILET SOAPS,

PERFUMERY,

PROPRIETARY MEDICINES,

CONDITION POWDERS,

PILLS,

SEIDLITZ POWDER BOXES,

LOZENGES, &c.

DIAGONAL POWDER BOXES,

PLAIN AND SHOULDERED SODA POWDER BOXES,

SAMPLE BOXES FOR DRUGS AND SEEDS,

OBLONG PLAIN POWDER BOXES,

OBLONG SHOULDERED BOXES,

SQUARE SHOULDERED BOXES,

SUPPOSITORY BOXES,

MARBLE BOXES,

SLIDING BOXES, &c.

Druggists requiring any special kind of Boxes in colour or size should forward samples.
Quotations forwarded and Samples made on the shortest notice.

VALUE FOR MONEY—IN BEST WORK—THE SECRET OF SUCCESS

BOWLING & GOVIER

(Late Partners with FILMER KIDSTON),

MEDICAL SHOP FITTERS AND CASE MAKERS.



A willing mind makes light employment.

DESIGNERS OF THE NEW PHARMACEUTICAL DISPENSING COUNTER.

CHEMISTS commencing Business or making alterations, should apply to us for Estimate, and see the shops fitted in our modern style.

THE ART JOINERY WORKS, 22 GUN ST., BRUSHFIELD ST., BISHOPSGATE, LONDON.

HIGH CLASS WORK AT MODERATE PRICES.



Labour well planned is half done.

SHOPS FITTED IN COUNTRY **J. & W. BYGRAVE,** SAME PRICE AS IN TOWN

SHOP FITTERS & AIR-TIGHT CASE MANUFACTURERS

12 CURZON STREET, WENLOCK STREET; and

WORKS:—3 CROPLEY STREET, WENLOCK STREET, HORTON, LONDON, N.

CHEMISTS' SHOPS FITTED IN ANY STYLE, 20 PER CENT. LESS THAN ANY IN THE TRADE.

CIRCULAR-FRONT GLASS COUNTER CASES, in French Polished Mahogany, or Ebonized with Spring Fastenings, 30-in. long, from £1 2s. 0d.

FLAT PLATE GLASS CASES, from 20s. per foot run.

MEDICAL LABELLING & GENERAL WRITING GLASS FASCIAS, TABLETS, &

Wood, Glass, and Metal Letters. Bottles and Jars Labelled on the shortest notice.

ARTISTIC SHOP FITTINGS

FOR HOME AND EXPORT.

Our NEW CATALOGUE sent free on receipt of Business Card.

JOHN CURTIS & SON, WADE STREET and WADE LANE, **LEEDS**

ESTABLISHED 1852.

SHOP-FITTINGS.

ESTABLISHED 1830.

SAMUEL HOWLETT,

4 LINDLEY STREET (formerly called North St.), SYDNEY STREET, MILE END, LONDON, E.

A few Minutes' Ride by Omnibus from the Bank.

MEDICAL AND GENERAL SHOP FITTER.

SHOPS FITTED BY S. H., and to whom references are kindly permitted:—

Messrs. Corbyn, Stacey & Co., 7 Poultry, London.

Mr. H. Deane, Clapham, London.

" John Broad, Hornsey Rise, London.

" N. Nicholson, Canonbury, London.

&c.

&c.

&c.

Messrs. Leath & Ross, St. Paul's Churchyard London.

Harvey & Reynolds, Leeds.

Mr. W. F. Smith, 280 Walworth Road, S.E.

Mr. Thomas Hall, Lowestoft.

&c.

&c.

&c.

Cabinet Fitter to the Pharmaceutical Society of Great Britain. Manufacturer of every description of Air-tight Glass Shop cases for Chemists, Jewellers, &c. Medical Labelling, &c.

Plans and Estimates for Entire Fittings and Alterations supplied.

GEORGE TREBLE & SON,

If New Fittings are required or Alterations become necessary, apply to GEO. TREBLE & SON, whose Travellers will call to take instructions and measurements in any part of the kingdom, and will prepare Suitable Designs and Estimates Free.

DRUGGISTS' SHOP FITTERS BY CONTRACT.

BRIDGE WHARF,
WHITMORE ROAD,
HOXTON, LONDON, N.

Agents—S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE, CITY.

NOTICE! 66 PENTONVILLE ROAD, N. Sole Address.
W. J. LEMAITRE & CO.,

(ESTABLISHED 1830)

Medical and General

SHOP FITTERS
WRITERS, DECORATORS, &c.

MANUFACTURERS OF
COUNTER SHOW CASES,
BRASS WINDOW FITTINGS,
POLISHED EDGED GLASS SHELVES,
DISPENSING SCREENS,
COUNTER DRAWERS, DESKS, ETC.

ESTIMATES FREE.

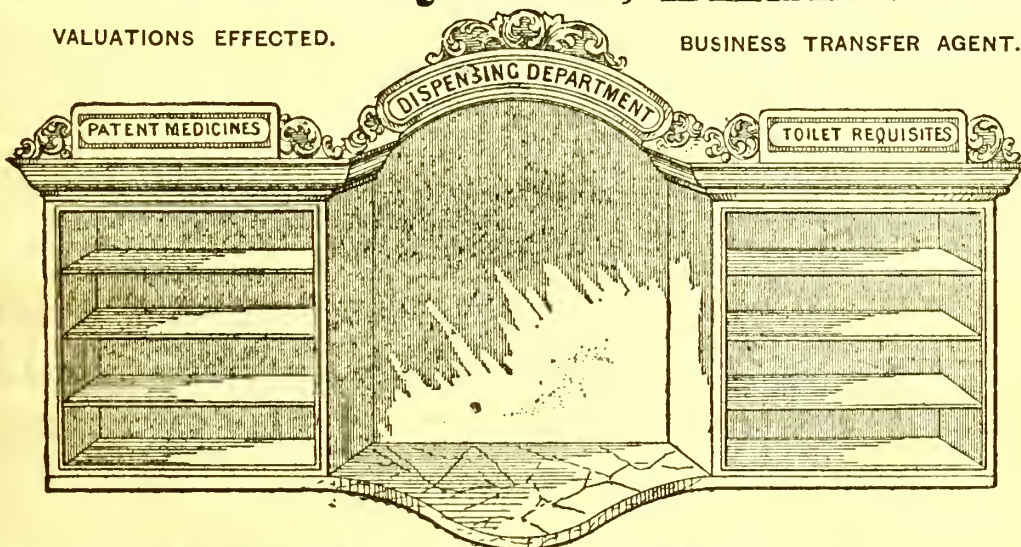
SHOW JARS AND COVERS,
MEDICAL LABELLING,
WOOD AND GLASS LETTERS,
FACIAS AND WIRE BLINDS,
BOTTLES, CARBOYS, ETC.

NOTICE! 66 PENTONVILLE ROAD, N. Sole Address.

R. TOMLINSON,
DRUGGISTS' SHOP-FITTER, SHOW-CASE MAKER,
AND MANUFACTURER OF DRUGGISTS' SUNDRIES,
15 St. PAUL'S SQUARE, BIRMINGHAM.

VALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.



This Case is made of choice Mahogany, with Mirror in centre, and is lined at back with Black Enamelled Leather Cloth; it has Plate-Glass Shelves, Glass Knobs on the Doors, Marble Slab in the Centre, and is fitted with Three Shelves at back. The Case is 6 feet long, 29 inches to cornice, 23 inches to top of tablets, and 26 inches to top of centre mirror.

For Export or easy transit it is admirably adapted, as it makes to pieces, and can be fixed again in an hour. Packed into a Case 44 by 26, at a cost of 10s. 6d., of which is allowed if the empty is kept, and the full value allowed if returned carriage paid. Price, 28 10 0.

Second-hand Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &c
SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.

R. T. will wait upon parties fitting up, to plan and advise. 2nd-class fare only charged.
FOR SALE, FIXTURES FOR SHOP ABOUT SIXTEEN FEET BY TWELVE. WRITE FOR LIST.

CHEMISTS' TRANSFERS.

32 LUDGATE HILL, LONDON (14 Doors from St. Paul's Churchy).

MESSRS. ORRIDGE AND CO., CHEMISTS' TRANSFER AGENTS

May be consulted at the above address on matters of SALE, PURCHASE, and VALUATION.

Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to the firms in the Trade.

VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to the persons most likely to possess business qualifications and adequate means for investment.

PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by clearly the class of connection they wish to obtain. N.B.—No Charge to Purchasers.

Particulars of any of the following will be sent free on application:—

1. £1,250.—LONDON, MAIN ROAD TO THE CITY.—Retail Dispensing and Prescribing Business; returns at present at the rate of £1,250 yearly; good house; well situated; price £850; part can remain if wished.

2. £400.—CRYSTAL PALACE (near).—Good Class Dispensing and Retail (new business); returns at the rate of £400 yearly; increasing fast; full prices obtained; large house, double-fronted shop; price about £400.

3. £650.—LONDON, N.W.—Good Class Dispensing and Retail; splendid opening for Dentist; returns £650, with large profits; good house; rent low; long lease; price about £600.

4. £1,500.—LONDON, S.E.—Wholesale and Retail; very old-established; returns nearly £1,500; good house; long and beneficial lease; fullest investigation permitted; price £1,450.

5. £617.—LONDON SUBURB, S.W.—Attractive locality; good class Retail and Dispensing; handsomely fitted shop; returns £617, increasing; good house; price £600.

Other businesses, Town and Country, particulars free on application.

ORRIDGE & CO., 32 Ludgate Hill, C.

MIDLAND COUNTIES TRANSFER AGENCY.

F. J. BRETT,

Trade Valuer and Auctioneer, Leicester.

All kinds of Chemists' Stock and Fixtures valued. Partnerships arranged. Particulars of different classes of Businesses forwarded to Buyers.

To prevent disappointment, it is necessary for gentlemen desirous of securing Mr. Brett's services as a Valuer that appointments should be made as early as possible.

F. J. Brett has always on his Register from 200 to 300 Businesses in all parts, and at a wide range of prices.

Statements prepared for Meetings of Creditors.

F. J. Brett's practical knowledge of the trade in all its branches renders him specially adapted to act as trustee in Liquidations and Bankruptcies. Chemists in difficulties can have their affairs settled by private arrangement.

STAFFORDSHIRE.—Good Mixed Retail, in large manufacturing town, returning £1,300; shop is large, of commanding appearance, and well fitted; excellent house, on lease; price £800, and good introduction given.

LEICESTER.—Prescribing and General Retail, with considerable reputation for teeth-extracting, for sale, through death of owner, after a successful occupancy of 30 years; returns now £13 per week; has done double, and with energy could again; for sale, without goodwill, at valuation of stock and fixtures, about £400 to £500.

SHEFFIELD.—Mixed Retail, with Paints and Oils; returns £14 per week; price £400.

KENT.—Fashionable Seaside Resort; returns £1,000 per annum, at full prices (patents excepted); price £650, of which £250 can remain; month's introduction given.

WILTS.—Good Family Retail, with fair Dispensing, at good prices; fine double-fronted shop; excellent house, and large well stocked garden; *bona fide* cause for sale; returns £800; price about £700.

SALE BY AUCTION.

F. J. BRETT is instructed to SELL by AUCTION, in One Lot, as a GOING CONCERN, at the George Hotel, Brighouse, Yorks, in consequence of advancing years and infirmities, the Light Retail and Prescribing Business of Mr. J. H. Kershaw, together with the whole of the Stock-in-Trade, Fixtures, Fittings, and Utensils. An excellent opportunity is presented of securing a good connection for a limited outlay. Sale on Tuesday, October 23. Orders to view can be had of the auctioneer.

SALE BY AUCTION.

F. J. BRETT is instructed to SELL by AUCTION, on Monday, October 29, the old-established Dispensing Business carried on for many years by Mr. Humphreys, for many years at 43 Bull Street, Birmingham. The situation is one of the best in this important town. There is a good connection with surgeons. To a smart man, with knowledge of dentistry, a fortune can be realised. The sale is of a thoroughly *bona fide* character, and no reasonable offer will be refused. Cards to view a week prior to sale at the auctioneer's offices, 23 Rutland Street, Leicester.

F. J. BRETT, LEICESTER.

MR. TRIPPIER, Medical Agent and Valuer

79 ISLINGTON, LIVERPOOL

FOR TRANSFER.

AN Old-established Family, Dispensing, Retail Business, returning £1,400; in principal street, large manufacturing town; Handsomely fitted shop and well-selected stock; proprietor's good house on lease; anyone wanting a really genuine business will find this worthy of consideration; investigation courted.

PRESTON.—An established light Retail, Dispensing, and Prescribing business; all ready money; handsome fittings; comfortable house; very low rent.

MID-LANCASHIRE.—A thorough good Prescribing and Dispensing Business; established 28 years; thickly-populated locality; returns £700; great scope for increase; premises large, on favorable position for proprietor retiring.

LIVERPOOL, partly in the suburbs, a Prescribing and Dispensing Business; 25 years in present hands; doing a profitable corner shop, well stocked, great thoroughfare; a bargain; ill health of disposing.

LIVERPOOL.—An Old-established Dispensing and Medical Business; very profitable; terms easy; central position.

A FAMILY and Dispensing Business, established 30 years, 50 miles of Liverpool; returning £700; handsome fittings, shop, good house and premises, on lease; proprietor having other engagements. A large number of Businesses from £150 to £1,000.

SOMERSET.—A General Retail, Dispensing, Prescribing, and Prescribing Business; established over 60 years; good dwelling, ward, etc., and garden, at very low rent; a genuine business, and can be run by a newly married couple, or man with small family.

No Commission is charged to Purchasers.

All information on application. To facilitate matters, a reference required on parties applying for the first time.

Lists of Stock for Appraisal receive immediate attention.

THOS. TOMLINSON & SO, AGENTS AND VALUERS 41 CORPORATION STREET, MANCHESTER 35 YEARS' PRACTICAL EXPERIENCE.

Chemists and Drysalers desirous of either buying or selling business should apply as above. Candid and conscientious opinions are given upon. Have now for Disposal in Sheffield, Droylsden, Burnley, Manchester, Oldham, Bury, Derby, Nottingham, Yorkshire, Cheshire, Lancashire, &c., &c., at almost any price to suit purchasers.

An old-established Business in a good outskirt of Manchester; Retail and Dispensing; one-half profit; good corner shop, central position, private entrance; valuation about £450.

A Business at Pontefract; established 50 years; at valuation, about £400. A genuine Mixed, Ready-money and Semi-wholesale Business in Manchester; about £500; established 40 years.

Partnership in a prosperous business, doing a profitable trade with about £2,000 required to take the place of a partner retiring; one with knowledge of Drug trade preferred, but not absolutely necessary; might either travel or attend to home duties.

Messrs. TAYLOR & CO.

LICENCED VALUERS AND CHEMISTS' TRANSFER AGENTS,

WALBROOK CHAMBERS, 38 WALBROOK, LONDON. E.C.

Have numerous Businesses in Town and Country on their Register for Disposal.

Gentlemen seeking suitable opportunities for entering business are invited to send particulars of their requirements.

T. & Co. have also several Mineral Water Businesses for disposal, showing excellent profits, and requiring investments from £250 to £2,000.

Advice given as to the value of businesses, both to buyers and vendors, free.

Taylor & Co. have been actively engaged for upwards of 20 years in the trade, Vendors and Purchasers consulting them have the advantage of their varied and extensive experience.

N.B.—No charge made to purchasers.

HENRY GADD,

Member of the Pharmaceutical Society,

CHEMIST TRANSFER AGENT AND VALUER, 107 FORE STREET, EXETER.

Full particulars of valuable and high-class Businesses in London and Country sent on receipt of application, per post or otherwise. Applicants will oblige by stating size of business required.

SCALE OF CHARGES FOR

MISCELLANEOUS ADVERTISEMENTS.

ARTICLES SHIPS.

PARTNERSHIPS.

BUSINESSES WANTED.

BUSINESSES FOR DISPOSAL.

EMPLOYERS WANTING ASSISTANTS.

ADVERTISEMENTS appearing under these Headings are charged at the rate of 6d. for 7 lines or under, and 6d. extra for every additional line (at 10 words).

ASSISTANTS WANTING SITUATIONS have the liberty of inserting Advertisements of 12 words for 1s.; every additional 3, 4, or 6 words, 6d.

When reply to an Advertisement is to be received at our Office, an extra charge 6d. will be added, and this will pay for transmitting same.

Advertisements must accompany any order for either of the above classes of Advertisements.

TO LET.

TO CHEMISTS.—A capital Shop, good house in thorough repair, good and thick populated neighbourhood; lofty plate-glass front, private entrance, low rent, no premium required; no other chemists near; rare chance for a young beginner. Apply, J. R. Crook, 100, Wold Crescent, Harrow Road, W.

TO LIQUOR.—To Chemists, Druggists, Wine and Spirit Merchants. To be let entered upon at once as a going concern, the business may be carried by James Jackson, Market Place, Kirbywoodside. Stock and fixtures, valuation; good opening; first-rate premises. Apply to Alfred C. Iper, Billiter House, Billiter Street, London, E.C.; or to Geo. Frank, Bank Union Bank, Kirbywoodside.

TO CHEMISTS, DRUGGISTS, AND SURGEONS.—Exceptional opportunity of obtaining Chemist's premises, excellently fitted, in the north-west London; shop fronts to two streets, with two dwelling-houses over, capable of being sublet; present 7 years' tenancy terminable at Christmas next; terms easy; no premium. Address, Mr. Bridgman, 42, Poultry, London.

CANNON STREET, CITY.—To be Let, a portion of No. 42, over the Office of this Paper, having an entrance in Cannon Street and in Bow Lane, from Queen Victoria Street, and immediately opposite the Mansion House Station. Floors average 2,000 superficial feet. Particularly adapted for Manufacturers' London Show Rooms. May be viewed, and full particulars had, on application to the Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

BUSINESSES WANTED.

WANTED, to Purchase, a genuine Retail and Dispensing Business, returning from £800 to £1,000; only principals need apply, stating full particulars, to G. H., care of Hirst, Brook & Hirst, Leeds.

BUSINESSES FOR DISPOSAL.

FOR DISPOSAL, old-established Business; returns £1,000. Apply, S. C. Nutman, 2 Applegate Street, Leicester.

GENUINE Business in North of London for Disposal, in a leading thoroughfare. Full particulars on application, by letter only, to A.B., Messrs. Baiss Bros. & Co., 4 Jewry Street, E.C.

PRICE £320, or reasonable offer; Chemist's Retail, Prescribing, and Dispensing Business, S.E. district (old established); proprietor now about taking a larger business; shop well stocked and handsomely fitted; long lease, low rental. Apply, G. W., 64 Park Street, Southwark.

SUBURB OF BIRMINGHAM.—Excellent Dispensing and Family Business. Returns, £550; good profits; corner shop, well fitted and stocked; good house and garden; splendid opening for dentistry. Price, £100. Satisfactory reasons for disposal. Address, Delta, Wyleys & Co., Coventry.

MID WALES.—One of the oldest and best country Drug and Dispensing Businesses, in a good market town, for disposal, the Proprietor retiring; returns, of a miscellaneous character, about £1,800 per annum; rent £35, including good shop, warehouse, garden, &c. For further particulars, apply "Rus," care of Southall Brothers & Barclay, Birmingham.

FOR DISPOSAL, in one of the most populous and improving suburbs of Leeds, a compact Chemist's Business, with Gilbey's Agency attached; average returns last three years £1,600 per annum (about one-third or less, Gilbey's); rent £30; to a steady, energetic man a certain fortune. Apply, X. Z., Messrs. Goodall, Backhouse & Co., Leeds.

ON SALE, in a beautiful country district in the North of England, a Light Retail, Dispensing, and Prescribing Business; doing £8 per week; under management; price £300, half of which can remain unpaid for twelve months on approved security. Apply, 73/36, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WALSALL.—In consequence of ill-health, proprietor going abroad, a profitable Dispensing, Prescribing, and General Retail Business, in a populous and increasing neighbourhood; returns for year ending Sept. 29, 1880, showing an increase of £75 on previous year; rent £30; ten years' unexpired lease; price £630 cash. J. J. Partington, 45 Caldmare Road, Walsall.

LONDON, N.—Good business neighbourhood; a very profitable Dispensing, Retail, and Prescribing Business; returns nearly £400 yearly; full prices obtained; net profits, £160; well-fitted shop; good stock; house contains 8 rooms; rent, £50; vendor taking a larger business is anxious for an immediate transfer; price, about £250, or offer. Full particulars from Messrs. Orridge & Co., 32 Ludgate Hill, E.C.

WARWICKSHIRE.—In a small and improving town a few miles from Birmingham, a good Dispensing and Family Business for disposal; convenient house with garden; the rent, including taxes, £35 per annum; returns about £1,000; profits large; price, inclusive of stock, fixtures, and goodwill, £800. Apply "Suburb," care of Southall, Brothers & Barclay, Birmingham.

TO CHEMISTS AND DRUGGISTS.—To be disposed of, with immediate possession, the business of a Chemist and Druggist, situate in a splendid locality in Derby. Fine commanding premises, consisting of double-fronted shop, fitted up in the best style, warehouse and yard at back; also large and convenient dwelling house. Stock and fixtures at a valuation. For further particulars apply to T. H. Harrison, A.C.A., 18 Wardwick, Derby.

MUST be Sold at once, having taken a farm; a splendid opportunity for a snug and profitable business in one of the healthiest parts of London, doing a good Prescribing and Dispensing business at full prices; returns by undivided attention may soon be doubled, returns now about £750; rent £70, on lease, large house, £50 of which can be let off; price, all included, £700. L. H., care of Barron, Harvey & Co., Giltspur Street, E.C.

IN consequence of having purchased a larger business. To be sold with immediate possession, at valuation of stock and fixtures; an old-established light retail and Dispensing Business, in Birmingham, returning £800; shop large, with handsome plate-glass front; in excellent thoroughfare; 3½ minutes from New Street Station. Also valuable lease of the premises (3½ years unexpired), during which there is no rent. Address B. W., Philip Harris & Co., Bull Ring, Birmingham.

PARTNERSHIP.

TO WHOLESALE DRUGGISTS, Drysalts, or other kindred Business. —A Young Gentleman, with capital and 10 years' experience in the Retail Drug Trade, seeks a Partnership as above, where he could take an active part as Traveller, and assist with the books. Address, 73/2, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EMPLOYERS WANTING ASSISTANTS.

ASSISTANT, Junior Wanted, who understands Postal and Telegraph Business. Apply, stating age, height, salary required, references, and enclose carte (to be returned) to Mr. Warneford, 50 Queen's Road, Brighton.

WHOLESALE DRUG TRADE.—Junior Invoice Clerk Wanted; must be quick at figures and write a good hand. None but those accustomed to a similar position need apply by letter to C. R. Harker, Stag & Moss, 15 Laurence Pountney Lane, Cannon Street, E.C.

CEYLON.—An excellent opportunity for an energetic business man occurs in Pointe de Galle, through a death vacancy. A moderate amount of capital only required. Apply for particulars to D. P. S., Messrs. Bais Bros., 4 Jewry Street, E.C.

A JUNIOR ASSISTANT, for a Dispensing and Light Retail Business; Churchman preferred; photograph to be enclosed if possible. Apply, stating age, height, reference, salary required, when disengaged, &c., to F. Sussum, 6 Market Place, Cambridge.

ASSISTANTS WANTING SITUATIONS.

WANTED to manage a good Country business with view to purchase. M., 1a Hamilton Street, Camden Town, London.

EVENING EMPLOYMENT in London by qualified Assistant; highest references. S. W., 34 Brunswick Road, Gloucester.

A ASSISTANT, "Mixed trade;" height 5 ft. 6½ in.; aged 27. Address, S., 3 Broad Street, Bradford.

A JUNIOR, in a good house of business in London; aged 20; 4½ years' experience; disengaged. J. W. A., Bromham, Chippenham.

LOCUM TENENS; qualified and experienced. "Chemists," 11 Blomfield Terrace, Paddington.

A MANAGER; single, and of good experience in Prescribing and Counter Practice; salary moderate; good reference. Address, R. T., 16 Oxford Road, Kilburn.

A ASSISTANT; aged 22; over 5 years' experience; fluent French; can extract teeth; disengaged early in November. A. B. Scott, 30 West Street, Boston.

ADVERTISER, experienced, with good connection amongst Chemists, Drysalts, &c., is open for one or two good Agencies. Address, V. 86, Guardian Office, Manchester.

A ASSISTANT, or to Manage a Branch; 12 years on own account; 20 years' experience. Letters to 72/11, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A MANAGER, Branch or otherwise, by a qualified business man of long experience. Can prescribe and extract teeth well. Unexceptionable references; married; aged 40. Jenner, 196 Seven Sisters Road, N.

WANTED, by the Widow of a Chemist, Situation as Housekeeper with servant; could serve in open surgery or shop during the absence of principal if required; town or suburbs. Address, E., 11 Crogsland Road, Haverstock Hill, N.W.

TO WHOLESALE DRUGGISTS' SUNDRYMEN AND OTHERS.—A Gentleman of experience and undeniable references desires a position of trust, where, by introducing about £1,000 and active services, he would obtain £300 or £400 per annum. Address, with particulars, to 74/11, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

WRITING ON GLASS, Labelling, and every description of Glass Lettering, Sign Writing, &c., undertaken; quotations submitted; estimates furnished for shop fixtures, &c. Apply, Druggists' Sundries Department, Evans, Sons & Co., 56 Hanover Street, Liverpool.

TO TRAVELLERS CALLING UPON CHEMISTS, MEDICAL MEN, and HOSPITALS in Town and Country.—WANTED, AT ONCE, to offer Surgical Instruments and Appliances of Best Quality, on Liberal Commission, from Samples or Illustrated Priced Catalogue. One accustomed to Instruments preferred. First-class references required. Address C. W. & Co., 108 New Bond Street, London.

IMPORTANT TO CHEMISTS.

CUTTING PRICES, Stores, and unfair Competition may be defied by introducing and selling your own medicinal specialties. I shall be glad to post my detailed lists of formulae, &c., to any chemist at home or abroad. Recipes 1s. 1d. each, 6 for 5s., with full instructions, post free. Terms "Satisfaction guaranteed." T. Brooks, Chemist, Louth, Lincs.

TO CHEMISTS ON DENTAL REGISTER
L.D.S.R.C. Diploma (Dub., Edin., or Glas.).

QUALIFY! QUALIFY! QUALIFY!

PROFICIENCY, leading to a successful pass may be attained by following a most thorough course of tuition, and may now commence for March Examinations. Terms of receipt stamped envelope. Mr. R. Green, 1 Raymond Villas, Third Road, Walthamstow.

Lantern and Dissolving-View Apparatus.
LIME AND OIL LIGHT, Gas Bags, Retorts, Screens, &c., &c. 10,000 Lantern Photographs in plain or coloured, with descriptive readings. Chemists and druggists dealing in scientific apparatus are requested to send for Illustrated Trade List to the Manufacturer, A. Stanhope Street, Birmingham.

HONEST COMPETITION.

Chemists wishing to compete with Stores and cutting prices would for my detailed lists (post free), containing 190 recipes of Medicinal Specialties, all in actual commerce.

EFFERVESCENT SALINE (like Eno's). Perfectly soluble, risk of violence. Costs 19d. lb.

RED ROSE LOTION. Elegant preparation for sunburn, chafes, and skin eruptions.

CORN ERADICATOR (iodine and salicylic acid). Instant relief certain cure guaranteed. Recipes 1s. 1d. each, 3 for 2s. 6d., with full instructions. T. Brooks, Chemist, Louth.

BIRKBECK BANK. — Southampton Building Society, Chancery Lane. ESTABLISHED 1851.

Current Accounts opened according to the usual practice of Bankers, and Interest allowed on the minimum monthly balance not drawn below £25. No commission charged for keeping Accounts excepting under exceptional circumstances. The Bank also receives Deposits at Three per cent. Interest, repayable on demand. The Bank undertakes for its Customers, free of charge, the custody of Deeds, Wills, and other Securities and Valuables; the collection of Bills, Dividends, and Coupons; and the purchase and sale of Stocks and Annuities. Letters of Credit and Circular Notes issued. A Pamphlet, full particulars, on application. FRANCIS RAVENSCROFT, Manager.

THE BIRKBECK BUILDING SOCIETY'S ANNUAL RECEIPTS EXCEED £1,000,000.
HOW TO PURCHASE A HOUSE FOR TWO UNITS. PER MONTH, with immediate Possession and no Rent to pay to the Office of the BIRKBECK BUILDING SOCIETY.

HOW TO PURCHASE A PLOT OF LAND FOR BUILDING OR GARDENING PURPOSES. Apply at the Office of the BIRKBECK BUILDING SOCIETY. A Pamphlet, with full particulars, on application. FRANCIS RAVENSCROFT, Manager.

Southampton Buildings, Chancery Lane.

THE CHEMISTS' & DRUGGISTS' DIARY, 1884.

NOW PREPARING FOR PUBLICATION.

This work is on the desks of thousands of Pharmacists in all English-speaking lands throughout the year.

Advertisements for insertion should be forwarded without delay.

PUBLISHING OFFICE—

42 CANNON STREET, LONDON, E.C.

1883.

SEVENTEENTH SEASON.

REGISTERED
LUNG
PROTECTOR
TRADE MARK

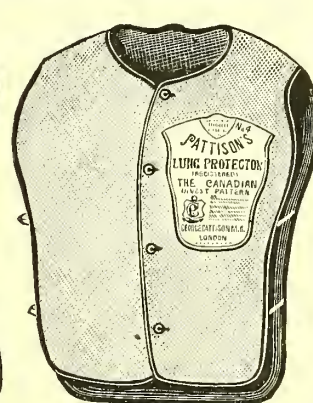
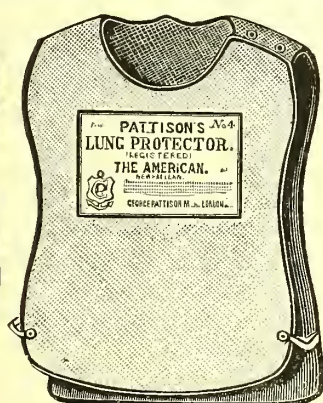
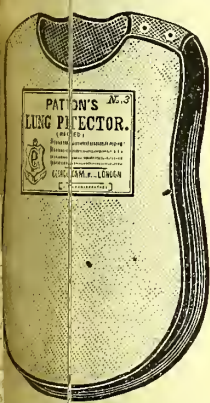
THE

LUNG PROTECTOR

(REGISTERED).

"An Article of Acknowledged Excellence."

The LUNG PROTECTOR" continues to be made only from the same Fine Soft Wool which is always been used since its introduction 17 years ago. Chemists are cautioned against the mendacious assertions of unscrupulous persons who push upon them coarse and inferior imitations, the sale of which can only lead to ultimate loss of trade.

THE
LUNG PROTECTOR.
ORIGINAL PATTERN.LUNG PROTECTOR.
THE AMERICAN.LUNG PROTECTOR.
THE CANADIAN.

CHEST PROTECTOR.

PRICES :

	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
Original Pattern, Seven sizes	14/-	18/-	26/-	34/-	42/-	52/-	60/-	per doz.
The American, Six sizes ... ..	...	20/-	28/-	36/-	44/-	54/-	62/-	"
The Canadian, Six sizes ... ..	...	22/-	30/-	40/-	50/-	60/-	70/-	"

FELT CHEST PROTECTORS.

	No. 00	No. 0	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	
Prices... ..	4/-	6/-	8/-	10/-	12/-	16/-	20/-	24/-	per doz.

All in Scarlet and White, and made in same Wool as the "Lung Protector."

Terms : Wholesale Houses either allow a large Discount for Cash, or quote the goods at Reduced Net Cash prices.

FELT CHEST PROTECTORS, C QUALITY, single and double, each in five sizes.

At lower prices than above, and equal to BEST of other makers, but are NOT recommended.

GEORGE PATTISON,

INVENTOR AND MANUFACTURER,

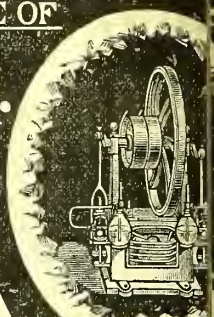
139 ST. JOHN STREET ROAD, LONDON, E.C.

MACHINERY & ALL APPLIANCES FOR THE MANUFACTURE OF

SODA WATER.

COMPLETE PLANTS FOR LARGE
OR SMALL FACTORIES.

GOLD MEDAL



DOUBLE PUMP

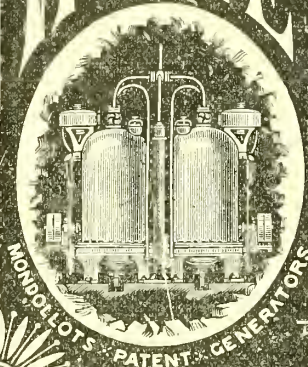
H. F. FAVARGER
WRITE

FOR MY NEW ILLUSTRATED
AERATED WATER ENGINEER,
75, TURNMILL ST., LONDON

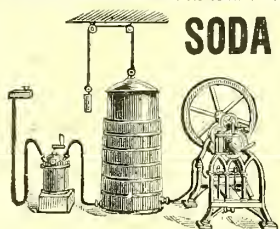
CATALOGUE, WHICH WILL BE
SENT FREE ON APPLICATION

Gas & Steam Engines, Boilers & Shafting,
Essences, Bottles, Boxes & all appliances.

CORRESPONDENCE INVITED, INSTRUCTION FREE.



MONDRIOTS PATENT GENERATORS



SODA WATER MACHINE.

EASY TERMS.

CATALOGUE FREE.

WRITE TO

N. G. WILCOCKS,

BACK STREET, BATH.

Price 5s., post free.

**"AERATED WATERS AND HOW
TO MAKE THEM."**

With Receipts for Non-Exciseable Cordials, American and other Syrups
and an Essay on the Art of Flavouring; by JOSEPH GOLD.
An invaluable handbook for the high-class manufacturer.

J. GILBERT SMITH, Publisher, 143 Queen Victoria Street, E.C.

FRATELLI DE PASQUALE & CO.,

LARGO MUNIZIONE, MESSINA, SICILY,

Manufacturers, established on the very growth place, for the Finest

ESSENTIAL OILS

of LEMON, BERGAMOT, SWEET AND BITTER ORANGE. Recently Awarded at the Exhibitions of

CALTANISSETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their manufactory, and Silver Medal for Excellence of Produce.

MILAN, 1881—A Bronze Medal for Excellence of Produce.

MELBOURNE, 1881—A First Order of Excellence of Produce.

MESSINA, 1882—A Gold Medal and 150 Liras for a complete set of Machines to the use of their manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all Particulars may be had from our Wholesale Agents—

SAMUEL LAMBERT & CO., 137 Fenchurch St., London,

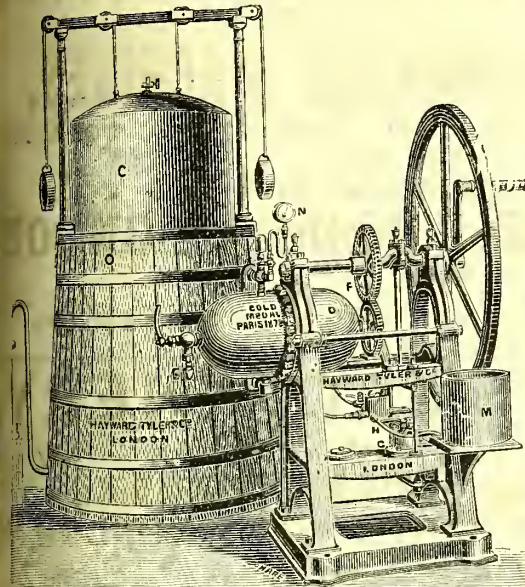
OR FROM MESSINA DIRECT.

GOLD MEDAL

AWARDED FOR

SODA WATER MACHINERY.

HAYWARD TYLER & CO.,



84, 85 WHITECROSS STREET, LONDON.

"FIVE FIRST-CLASS MEDALS AWARDED"

For very superior quality, make, and special excellence in finish.

THE BRITISH SYPHON

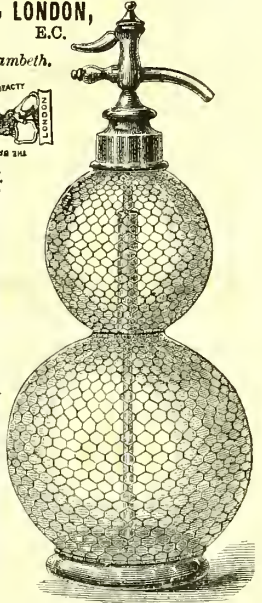
EUGSTER & KOERTGEN, MANUFACTURING CO.
PROPRIETORS.

2 GRESHAM BUILDINGS, LONDON,
E.C.

Works:
Wickham St., Lambeth.



Specimen of Trade Mark engraved on the Syphon Bottles by the acid process at 11d. and 2d. per bottle extra.
Name stamped on the metal tops free for orders of one gross.
IMPORTANT.—In ordering our Seltzenes through Agents, distinctly state that you require the "Lion and Shield" brand, and see that you get it as often others inferior are substituted.
All our apparatus are stamped thus—
GUARANTEED PERFECT, and of first-class workmanship.



SYPHONS.

Short Lever... .. 22/6 per doz. net.
Long " " " 24/0
White, Blue, Amber, or Green Bottles,
Cylindrical or Oval shaped.
Silver-plated tops, 9/- per doz. extra.

Each Seltzene and Syphon thoroughly tested before sent out.
All metal warranted free from lead.

SELTZOGENES.

3 pint wire covered, 13/-; cane covd, 13/6
" " " 18/-; " " 19/-
Silver-plated Wire or Top, 5/- extra.
Drop Cups, Measures, Fittings for Repairs, &c. Liberal discount.

SODA WATER MACHINERY

AND ALL ACCESSORIES.

FOR THE TRADE BY

BRATBY & HINCHLIFFE

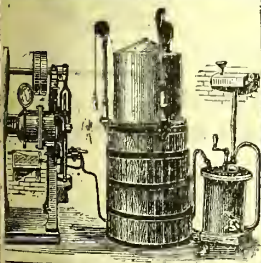
REPUTED WATER ENGINEERS & MANUFACTURING CHEMISTS

ICE MAKING MACHINERY A SPECIALITY

CATALOGUES, CIRCULARS & TESTIMONIALS POST FREE

FOR FURTHER PARTICULARS ADDRESS

POTT STREET, ANCOATS, MANCHESTER



VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

Fig. 2. For Mineral Waters and Gaseous Liquids,

Are now used by upwards of 900 Soda Water Manufacturers in the United Kingdom.

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as Fig. 3, 4/6; ditto, as per Fig. 4, 4/6; Patent Stoppered Bottles, ready for use; ditto Half Bottles, ditto; Patent Unstoppered Bottles; ditto Half Bottles; Fig. 9 Boxwood Bottle Openers, polished, 8/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.

Fig. 1.



Fig. 3.



Fig. 1 Stoppers, when invoiced separately, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time folding in the hollow part of the stem when passing into the Bottle. It is the only Stopper which requires no tool to fit the Bottle with; and when a Bottle breaks, which seldom occurs, the Stopper is always fitted with this washer, ready to be inserted in a new Bottle. Therefore it is the most durable and inexpensive Stopper in the trade.

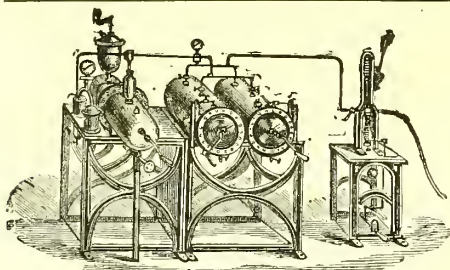
ADVANTAGES.—These Stoppers cannot break the Bottles. The smallest surface of india-rubber ever exposed to the liquid of any Stopper out. The Stoppers are inserted without trouble. No extra cost for Bottles. The Stoppers are cheap, very durable, and particularly clean. The Filling Machine is not expensive, and quick in action. Any Filling Machine, however, will do. The Patentee guarantees the Stoppers perfect gasholders, therefore no leakage is possible. That Bottles may be opened, with or without an opener, by the pressure of the finger.

NOTICE TO THE TRADE.

It having come to my knowledge that certain parties conversant with the great and acknowledged superiority of my Patent Stopper, have so re-modelled theirs so as to constitute a clear case of infringement upon my rights, I wish it to be known that I intend to take such steps against the said parties as may seem desirable, should this notice not be effectual.

Sample and Particulars sent on application to

L. VALLET, 49 EVERTON RD., LIVERPOOL.



SODA WATER MACHINE COMPLETE, WITH RACK.

AND ALL REQUIREMENTS OF EITHER TRADE
SEPARATE CATALOGUES, POST FREE.

BEFORE BUYING, SEND FOR CATALOGUE TO
DAVENPORT & CO., 99^N High Holborn, LONDON

ALSO AGENTS FOR

HAYWARD TYLER & CO.'S MACHINERY.
BARRETT'S PATENT BOTTLES.

CHEAVIN'S FILTERS.
WILKINSON'S PATENT BEER BOTTLES.
CROSSLEY'S AND "BISSCHOP" GAS ENGINES.

SODA WATER MACHINERY

And all Appliances connected therewith, for the Manufacture of the Highest-class Waters, by

BARNETT & FOSTER,

26^T EAGLE WHARF ROAD, NEW NORTH ROAD, LONDON N

Medals—London, 1862, 1873, 1874; Paris, 1867, 1878; Vienna, Philadelphia,
Cape, &c. Highest Award, Sydney, 1879-80.

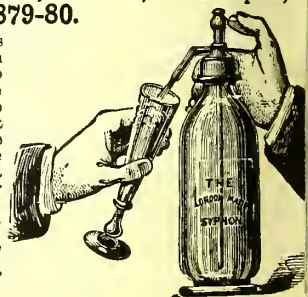
B. & F. are Sole Agents for CODD'S
PATENT SODA WATER BOTTLE, in
use in all parts of the world.

This Bottle for containing Aërated
Waters is the most efficient of any yet
invented, and is above all the one most
appreciated by the public.

Prices, and all Particulars, upon
application.

B. & F. are Sole Manufacturers
for the "London-made" Syphon
Bottle, preferred by the public to
all others. It is the most simple
in its working parts, therefore the
least liable to get out of order; it
is the most easily opened, the
lightest pressure on the handle
being sufficient; it produces a
more highly charged gaseous water
than is usually obtained from
syphons; it compares most favour-
ably in appearance with any.

Prices, per gross, quart size, 22/
per doz.; ditto, pint size, 21/ per doz.
Packing extra.



ILLUSTRATED CATALOGUE FORWARDED FREE.

MAY-DAVIS'S PATENT BOTTLING MACHINE,

For Aerated Waters, Beers, Wines, &c.

Particulars of this remarkable Machine for Corked Bottles, which,
while producing the highest quality, dispenses with skilled labour and
breakage of bottles, besides otherwise economising, may be obtained from
the PATENTEES—MAY-DAVIS & CO.,

MINERAL WATERS MANUFACTURERS,
ESHER ST., WESTMINSTER;
OR FROM

HAYWARD TYLER & CO.,
UPPER WHITECROSS STREET, E.C.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Contains Chloride of Soda, Bicarbonates, Arsenics (28 millig. of arseniate of soda
per litre).

Dose: Half a glass to three glasses per day before or during meals.

A Regenerator for Weakly Children, and for Debility in Adults; also in Anæmia,
Fatty Degeneration, Affections of the Skin and Respiratory Organs, and Intermittent
Fever. Employed as a drink and in gargles for Bronchitis and Sore Throat, and as
a drink and lotion in Ringworm, Chaps, and Redness of the Skin.

Anglican Divine service on Sundays.

London: GALLAIS & CO., 27 Margaret Street, W. INGRAM & ROYLE, 119
Queen Victoria Street, E.C. WILLIAM BETTS & SONS, 22 Henrietta Street,
Cavendish Square. Liverpool: EVANS, SONS & CO.

By Special Appointment to
H.R.H. the Duke of Connaught and the Royal Family



BOURNE WATERS

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,

BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,

LEMONADE, AND AROMATIC GINGER ALE

4-dozen and 6-dozen Cases Carriage and

Pamphlets and Price on application. Agents appointed

National Health Society's EXHIBITION, LONDON, JUNE 1883.

GREAT SUCCESS!

The **SILVER MEDAL**, the Only
Award for Water Filters,

Was granted to

MAIGNEN'S PATENT

"FILTRE RAPIDE"

On account of its great superiority over all other
Filters in point of

**EFFICACY,
SIMPLICITY,
AND ECONOMY.**

"The National Health Society's Silver Medal was awarded to Maignen's 'Filtre Rapide' on the score of simplicity and comparative economy."—*The Ques*, July 7, 1883.

The Sanitary Institute of Great Britain

Have awarded this excellent Water Filter

ONE SPECIAL MEDAL OF MERIT, CROYDON,

TWO CERTIFICATES OF MERIT, EXETER,

ONE CERTIFICATE OF MERIT, NEWCASTLE.

International Medical & Sanitary Exhibition,

SOUTH KENSINGTON,

CERTIFICATE OF MERIT (HIGHEST AWARD).

Brighton Health Congress,

SILVER MEDAL (HIGHEST AWARD).

"A water filter could not be desired."—*The Lancet*.

"A fully excellent water filter."—*The Globe*.

"To cleanse the whole thing (Maignen's Patent 'Filtre Rapide') all that is required is to wash off the old filtering medium and deposit a fresh supply on the bestos cloth, an operation very easily accomplished in a few minutes and one which can be done without the trouble and expense of returning the filter to the maker."—*The Engineer*, June 22, 1883.

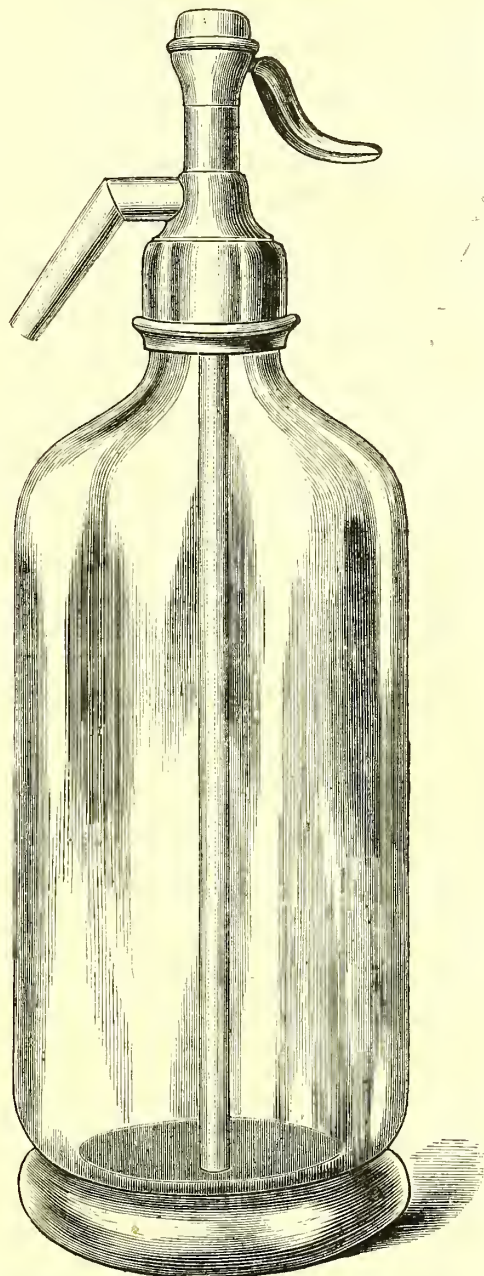
See numbers of Testimonials to be had from the Patentee

P. A. MAIGNEN,
2 & 23 GREAT TOWER STREET, E.C., LONDON.

N.—Cholera, Typhoid Fever, Diphtheria, and other epidemic diseases are spread by specific germs which enter the body with the air we breathe and the water we drink. In air these germs are dry, and, like the dry grain of wheat, lifeless, but in water they are already wetted and ready to develop into perfect organisms when taken into the human system. Maignen's Patent "Filtre Rapide" is guaranteed to remove from water even the smallest of these germs.

THE IDRIS SYPHON

*Is the best in the Market, combining the elegance
of the French with the strength and superiority
of English workmanship.*



Intending purchasers should apply
for samples and prices, before placing
their orders, to the

IDRIS MANUFACTURING CO.,
Ascham Street, London, N.W.

Tops guaranteed to be made of Best English Tin and
free from Lead.

BINGLEY'S SUPERIOR Ginger Ale.

After numerous experiments the Proprietor is enabled to offer a beverage which is considered by many to be one of the *very best* of its kind.

It is manufactured especially for sale by Chemists doing a family trade.

COMPARISONS ARE INVITED.

Samples may be obtained gratis, also trade terms, on application to

J. BINGLEY, NORTHAMPTON.

Caution

W. A. ROSS, the Original Patentee and Maker of The Celebrated Belfast Ginger Ale, cautions the Public that the "GENUINE" can only be had at

*Ross's Royal Ginger Ale
AND
Aerated Water Works Belfast.*

NAME ON CORK, CAPSULE, AND LABEL REGISTERED.

EXPORT ORDERS HAVE SPECIAL ATTENTION.

Persons using Aerated Waters should try Ross's, otherwise they will never know to what perfection Aerated Waters can be brought.—*Canterbury Journal of Commerce*, 17th June, 1882.

CANTRELL & COCHRANE

CELEBRATED

AROMATIC GINGER ALE, SPARKLING MONTSERRAT, CLUB SODA, AND MINERAL WATERS,

As supplied to Her Majesty's Imperial House of Parliament,

Have been Awarded TWENTY GOLD AND PRIZE MEDALS at the various International Exhibitions.

Goods for Export are specially prepared, and are guaranteed to keep in any climate.

PRICES AND TERMS ON APPLICATION TO—

CANTRELL & COCHRANE, BELFAST AND DUBLIN.

JEWSBURY & BROWN'S MANCHESTER

MINERAL WATERS,

PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

SOLE WHOLESALE AGENTS FOR THE DOMINION OF CANADA: A. C. SMITH & CO., ST. JOHN, NEW BRUNSWICK.

A CERTIFICATE OF MERIT, for superiority of quality, was awarded to Jewsbury & Brown at the Exhibition of Sanitary Appliances, at Owens College, Manchester, on the occasion of the Meeting of the British Medical Association, August, 1877.

A CERTIFICATE OF MERIT AWARDED by the British Association, 1878.

10 per cent. discount on all Natural Waters (See List, post free).

10 per cent. discount on all Natural Waters (See List, post free).

FIFTEEN GOOD REASONS WHY ALL CHEMISTS SHOULD JOIN THE CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION, LIMITED,

5 Gifford Street, LONDON, N., and Montpelier Gardens, HARROGATE.

- 1.—Because, taking into consideration the *superior quality* and the style in which the Waters are got up, they are *cheaper* than any supplied by other Manufacturers.
- 2.—Because *none but Chemists (Shareholders) can purchase the Waters direct*; consequently, when a Chemist has created a sale, he *cannot be undersold by Grocers*; whereas, if he purchase from other manufacturers, he will generally perceive that if he succeed in establishing ready sale for any brand, the *same Waters* will soon be found to be offered by Grocers, Wine Merchants, &c., in his locality, at a lower price than that at which he can afford to sell.
- 3.—Because the Waters are acknowledged to be of the first and purest quality, being carefully filtered, and passed through silvered machinery, thereby preventing the possibility of any contamination whatever with injurious metals.
- 4.—Because, in addition to the ordinary Waters, Soda, Potash, and Lithia Waters can be obtained of B.P. strength, and every chemist should stock some of these, as when Waters are ordered to be taken medicinally, B.P. preparations should always be supplied.
- 5.—At the Food Exhibition, Agricultural Hall, 1881, the Association's B.P. Waters obtained the only Prize Medal, and at Bradford Exhibition, 1882, the Highest Medal was awarded.
- 6.—Because goods are invariably despatched on same day as order received, carefully and well packed in strong bin cases, thereby preventing breakage in transit. Town goods are delivered by the London Parcels Delivery Company, Limited, and empties collected free.
- 7.—Because the best Syphons, with tops manufactured from the purest tin, are used; also first-class ordinary bottles, carefully dried and labelled, and corked with superior corks.
- 8.—Because the labels state the exact strength of the Waters—an Essential for Chemists' Trade.
- 9.—Because every Chemist who joins is assisting in making the Association Waters famous, and is consequently helping his brother chemist, while advancing his own interests.
- 10.—Because Chemists will learn what great power they possess when combined, and how well they stand in competition with other tradesmen, provided only they are loyal to each others' interests.
- 11.—Because about 650 Chemists have joined, and PROVED that they derive considerable benefit from combination.
- 12.—Because "ESCULAP" can be purchased in original packages by the Shareholders on very advantageous terms. CARRIAGE and to any part of the Kingdom.
- 13.—Because Seltzogenes of first quality can, when required, be obtained for members at a liberal discount.
- 14.—Because about 650 Chemists ask you to join with them.
- 15.—Because the larger the combination, the larger the dividends.
- 16.—Because all NATURAL MINERAL WATERS can now be purchased through the Association at *cheaper rates* than if he procured elsewhere.

NEW AND IMPORTANT DISCOVERY.

GINGER ALE FROM PURE JAMAICA GINGER.



ABSOLUTELY PURE.—
See Analysis by Drs. J. H. HASSALL,
M.D., and Otto Hehner, F.C.S.

The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by

Messrs. HARSTON & CO., of LEEDS.

"ABSOLUTELY PURE."
SEE ANALYSIS, sent post free on application.



ELLIS'S RUTHIN WATERS.

ESTABLISHED 1825.

"CRYSTAL SPRINGS." Renowned for their purity for HALF-A-CENTURY. Situated on the premises, and exclusively the private property of the Firm.

Soda, Glass, Seltzer, Lemonade, Aromatic Ginger Ale. For Gout; Lithia water, and Lithia and Potash Water. Corks branded—"R. ELLIS & SON, RUTHIN," and every Label is registered, and bears their Name and Trade Mark.

Sold Everywhere, and Wholesale of
R. ELLIS & SON, Ruthin, NORTH WALES,
Manufacturers to the Royal Family.

Local Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

FISHER'S

SOLUBLE ESSENCE OF GINGER,
SOLUBLE ESSENCE OF LEMON,
AND
GINGER ALE ESSENCE
ARE THE BEST YET INTRODUCED.

Dr. Thresh says of the Ginger Essence: "It is by far the best Soluble Essence I have yet seen, and I doubt the possibility of making a stronger or better."

Prices and Samples from the Maker,

F. D. FISHER, GRANTHAM.

T. & F. J. TAYLOR'S



AERATED WATERS,
Newport Pagnel.

ESTABLISHED 1836.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by analysis by Professor ATTFIELD, Ph.D., F.C.S.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS, FOR THE PRODUCTION OF THE FINEST LEMONADE.

Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon.—*The Chemist's Journal.*



The Essence mixes well with water, and has a delicate flavour. The Lemonade made therewith has a far more delicate flavour than that generally met with.—*The Chemist and Druggist.*

Trade Price, 8 6 per lb.; 12 lbs. and upwards, 8/.

PREPARED BY

W. HAY, Manufacturing Chemist,
BEVERLEY ROAD, HULL.

HAY'S GINGER CHAMPAGNE

CAN BE OBTAINED FROM THE SOLE AGENTS,

INGRAM & ROYLE,

119 QUEEN VICTORIA STREET, LONDON, E.,
AND BATH BRIDGE, BRISTOL.

Retail Price, in Half Champagne Bottles, 5/6 per doz.

This SPARKLING, EXHILARATING, and REFRESHING DRINK being far more agreeable in bouquet and flavour than the FINEST CHAMPAGNE WINE, is, at the same time, unlike it, FREE from ALCOHOL. It is strongly recommended both for Juveniles and Adults, &c., the most Wholesome Stimulating Beverage that has hitherto been introduced, and should be in every household during all seasons of the year.

Samaritan Free Hospital, Lower Seymour Street, Portman Square, London, W.

Dear Sir,—I have tried your Ginger Champagne, which I find to be excellent, and I look upon it as a step in the right direction towards meeting an unmet want. Our Senior Physician, Dr. Henry Sage, has also tried it, and is much pleased with it. We ought long ago to have had such a beverage. I believe that a great deal of drinking would thus have been prevented. I wish your effort much success.

I am, dear Sir, yours faithfully,
GEORGE SCUDAMORE, Secretary.

An excellent and most agreeable beverage.—*The Lancet.*

Made by Mr. Hay, of Hull, with his well-known SOLUBLE ESSENCE OF JAMAICA GINGER, taken as a PURE, WHOLESOME, STIMULATING, and NON-ALCOHOLIC beverage.—*British Medical Journal.*

One of the most delicate and wholesome drinks in the market.—*Medical Press.*



SOLE MANUFACTURER—

W. HAY, Chemist, &c., 4 Regent's Terrace, HULL.

BECKETT'S WINTERINE.

(WINTER PUNCH.)

The Best Substitute for Brandy. An Invaluable Stomachic and Stimulant.

CAN BE USED WITH EITHER HOT, COLD, OR AERATED WATER.

"Beckett's Winterine is a capital drink, possessing an agreeable aromatic fragrance and a delicate flavour that will gain universal favour."

"Beckett's Winterine is likely to suit nearly every taste."—*Church of England Temperance Chronicle.*

"Beckett's Winterine is an excellent drink."—*The Grocer.*

"It cannot fail to recommend itself both to the medical profession and the public generally after a single trial."—C. HATHAWAY, Esq., M.D., &c.

Pints, 1s. 9d. (sufficient for 20 tumblers); Half Pints, 1s.; Quarter Pints, 6d.

Sole Manufacturer, **W. BECKETT, HEYWOOD, MANCHESTER.**

Wholesale Agents—BARCLAY & SON, SANGER & SON, EDWARDS & SON, &c., &c.

FOREIGN MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case)

less 2s. Case, 30 bot.; 39/- Case, 60 1/2-bot.

APOLLINARIS WATER, 25/- Hpr., 50 bts.

39/- Hpr., 100 1/2-bts.

"Carriage paid." Hampers free.

5 per cent. discount if 20 Hampers.

HUNYADI JANOS (10 Cases, 3/- and 5/- less),

30/- Case, 25 bts.; 50/- Case, 50 1/2-bts.

SELTZER " " " 11/- Hpr., 25 bts.

" " " 15/- Hpr., 50 1/2-bts.

PULLNA " " " 18/- Case, 50 bts.

" " " 30/- Case, 50 1/2-bts.

VICHY " " " 31/- " 50 bts.

" " " 37/- " 50 1/2-bts.

CARLSBAD " " " 37/- Case, 50 bts.

KISSENGEN " " " 42/6 " 50 "

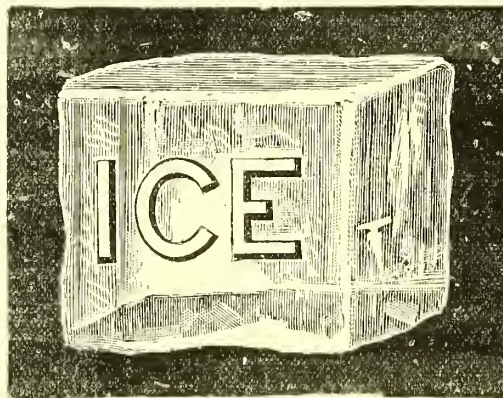
SCHWALBACH " " " 27/6 " 50 "

HOMBURG " " " 40/- " 50 "

WILDUNGEN " " " 43/- " 50 "

CARLSBAD'S ALTS, 1/2-Bot., 20/- per doz.;

1/2-Bot., 40/- per doz.; Bot., 50/- per doz.



REGISTERED AT STATIONERS' HALL.

NORWAY BLOCK ICE

FROM FINEST LAKES IN CHRISTIANIA.

Professor Frankland's report with an illustration: "The Ice is exceedingly pure, and contains less foreign matter than any water with which I am acquainted in this country."

Original Blocks
(2 to 3 cwt. each) 2s. 0d. per cwt.
1 cwt. to 2 cwt. ... 2s. 6d. per cwt.
1/2 cwt. to 1 cwt. ... 3d. per lb.
Under 1 cwt. ... 1d. per lb.
Packing free. Utmost promptitude in dispatch.

W. B. HARRISON

Importer of Ice and Mineral Waters,

6 BRIDGE ST., SUNDERLAND.

W. J. BUSH & CO.,

Distillers and Importers of

ESSENTIAL OILS AND FRUIT ESSENCES,

SOLUBLE ESSENCES FOR AERATED WATER,
AND CORDIAL MANUFACTURERS,

Extra Super Lemon, which is double the strength of ordinary commercial qualities.

W. J. B. & CO. CAUTION the Trade against the so-called soluble Essences now so frequently offered for sale, which are nothing more than mere tinctures, and, although offered at lower prices, cost five or six times as much in use, whilst imparting a disgusting medicated flavour.

NONE OTHERS ARE GENUINE.

FRENCH CREAM GUM EXTRACT.

PROTECTED BY ROYAL LETTERS PATENT.

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to CAUTION the Trade against spurious imitations of this article, most of which being mere rubbish.

W. J. BUSH & CO.'S ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.

„ AMYGD. „ (SINE ACID. PRUSSIC.)

„ ANETHI ANG.

„ CARUI ANG.

„ CARYOPH. ANG.

„ CINNAM. VER. ANG.

„ CUBEBÆ ANG.

„ COPAIBÆ ANG.

„ MYRISTICÆ ANG.

„ MENTH. PIP. MITCHAM RECT.

„ SANTAL FLAV. ANG.

OL. LIMONIS (W. J. B. & CO.'S SPECIALITY).

20-23 ARTILLERY LANE, BISHOPSGATE, LONDON, E.

LABELS AND

SEND FOR MY
ILLUSTRATED ^{AND} CATALOGUE
PRICE LIST.

THE PRINTER
FOR
Mineral Water Manufacturers,
Brewers, Chemists, &c.,
IS
J. B. LAMBE,
39 UPPER THAMES STREET,
LONDON.

MY NEWLY DESIGNED
STOCK **LABELS**
ARE NOW READY.

HOWARD & CO.

MONTSERRAT LIME FRUIT JUICE & CORDIAL

FOR SUMMER AND WINTER USE.

(In Summer mix with cold water; in Winter, with water as hot as it can be taken.)

ADVERTISED ALL OVER THE WORLD!

Montserrat Pure Lime Fruit Juice.

Montserrat Limetta, or Pure Lime Juice Cordial.

Montserrat Aromatic Lime Juice Cordial.

Montserrat Clove Lime Juice Cordial.

Montserrat Jargonelle Lime Juice Cordial.

Montserrat Raspberry Lime Juice Cordial.

Montserrat Strawberry Lime Juice Cordial.

Montserrat Quinine Lime Juice Cordial.

Montserrat Sarsaparilla Lime Juice Cordial.

100,000 GALLONS OF LIME JUICE IMPORTED ANNUALLY!

CHEMISTS SHOULD MAKE THIS A SPECIAL LINE.

The Montserrat Lime Juice enterprise was established by the philanthropist Edmund Sturge to provide work for the liberated slaves.

CAUTION!

THE GREATEST CARE should be observed that "MONTSERRAT" LIME-FRUIT JUICE and CORDIALS only are supplied, as there are numerous imitations sold under the name of Lime-Juice Cordial that are entirely artificial, or so charged with deleterious acid as to be injurious to health. The signees call attention to the following letter:—

Whereas the great popularity which has been attained by the Montserrat Lime-Fruit Juice grown on the estates of the Montserrat Company in the West Indies, of which Evans, Sons & Company, Liverpool, are the Sole Consignees, has led unprincipled persons to endeavour to use the name of our firm in connection with other and inferior Lime or Lemon Juice which they sell, I think it necessary to state that the whole of the raw Lime-Fruit Juice from the estates which were established by me, and are now carried on by the Montserrat Company, is, and has been for the last twelve years, consigned to Evans, Sons & Co., of Liverpool.

"(Signed) EDMUND STURGE."

BOTTLED ONLY
BY

EVANS, SONS & CO., LIVERPOOL,

SOLE CONSIGNEES OF THE
MONTSERRAT CO. (Limited).

EVANS, LESCHER & WEBB,
London.

H. SUGDEN EVANS & CO.,
Montreal, Canada; and Boston, U.S.A.

N.—No Lime Juice can be Montserrat unless bearing the Trade Mark on Capsule as well as Label of each Bottle.



SUITABLE FOR ALL CLASSES IN ALL CLIMES!

A NOVELTY!

MONTSERRAT LIME-JUICE SAUCE.

FOR ALL CLIMATES AND ALL PALATES.

The Strongest and most Delicately-flavoured Sauce, and the Cheapest.

Usual 2s. size for 1s.

MADE ONLY
BY

EVANS, SONS & CO., the Sole Consignees of the
Montserrat Co. (Limited),

56 HANOVER STREET, LIVERPOOL.

EVANS, LESCHER & WEBB,
London.

H. SUGDEN EVANS & CO.,
Montreal, Canada; and Boston, U.S.A.



CLAUDE RAYNAUD & CO.,

MANUFACTURERS AND DISTILLERS OF

POMADE, EXTRACT, OIL, ROSE & ORANGE FLOWER WATER, &c.

SPECIAL DISTILLATION OF

OIL LAVENDER

("Mont Blanc"),

ROSEMARY, ROSE GERANIUM, NEROLI, SPIKE, &c.

MESSRS CLAUDE RAYNAUD & CO. (Grasse), Dépôt, 16 Rue de l'Ecliquier, Paris, having imported the Lavender plant from Mitcham, and giving the cultivation of it their special attention, have succeeded in producing an Oil of Lavender which is considered equal to that of Mitcham, and are now prepared to offer it in 1 kilo. tins and upwards at 12s. per lb. Our other Specialities are

EXTRACTS.—Every care is taken in manufacturing our Extracts to suit the English Market, and are superior in quality to any others. Specialities—JOCKEY CLUB, WHITE ROSE, ESS BOUQUET, WOOD VIOLET, &c.

Sole Agent: G. V. De Luca, 6-7 Long Lane, E.C.; Dépôt: Newbery & Son, 1 King Edward St., E.C.



Shape of Bottle.
6 oz., 10 oz., 20 oz. fluid.

N.B.—Patent concentrated unchangeable
not use Ether or Sulphur of Carbon.

CHARRAS & CO.,

NYONS (DROME), FRANCE.

NEW YORK—Warehouse at 36 PLATT STREET.

Agent for London, Mr. ROBT. BRAND, 12 Old Jewry Chambers, E.C.

SPECIAL DISTILLATION OF

ESSENTIAL OILS,

LAVENDER, ROSEMARY, FENNEL, ORIGANUM, SPIKE, RED AND WHITE THYME.

SAMPLES SENT ON APPLICATION.

HEINRICH HAENSEL,

Pirna, a/d. Elbe, Saxony,

MANUFACTURER OF

ESSENTIAL OILS & ESSENCES

(TWO PATENTS FOR DISCOVERIES).

SOLE PROPRIETOR OF THE PATENT FOR THE METHOD OF MAKING THE

CONCENTRATED ESSENTIAL OILS,

KNOWN AS

HEINRICH HAENSEL'S PATENT ESSENTIAL OILS.

PATENT OIL OF LEMON	} All 30 times stronger, bulk for bulk, than the ordinary essential oils.
PATENT OIL OF ORANGE PEEL	
PATENT OIL OF ANGELICA, &c., &c., &c.	

The above Oils are completely soluble, and cause no cloudiness when mixed with ordinary spirits of wine.

ESSENTIA LUPULI (ESSENCE OF HOPS).

For use in Breweries in the place of Hops themselves; imparts a finer taste, and is much cheaper.

SOLUBLE ESSENCE OF GINGER

(VERY CONCENTRATED).

CONCENTRATED ESSENCES

Distilled, and easily soluble, for the preparation of all kinds of Liqueurs.

FRUIT ETHERS.

ESSENCES OF RUM, ARRAK, BRANDY.



HONOURABLE MENTION,

International Food Exhibition, Agricultural Hall, London, October, 1880.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of *Transparent Aerated Waters*, and for all *Dietetic, Medicinal, and Pharmaceutical* purposes.

Medical Opinions on HAY'S Soluble Essence of Ginger.

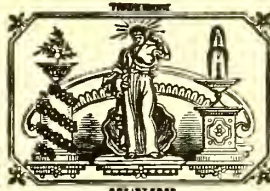
"Singlarly free from resin."—*The Lancet*.

"It would entirely supersede the official preparation of the British Pharmacopoeia."—*Medical Press*.

Medical Opinions on HAY'S Ginger Champagne.

"An excellent and most agreeable beverage."—*The Lancet*.

"Made by Mr. HAY, of Hull, with his well-known Soluble Essence Jamaica Ginger, takes rank as a pure, wholesome, stimulant, and non-alcoholic beverage."—*British Medical Journal*.



HAY'S Ginger Ale.

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger, without any trace of the stickiness which so often characterises inferior makes of ginger-beer. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist*.

Medical and other Opinions on the Ginger Beer made from HAY'S Soluble Essence.

"An excellent effervescent drink."—*The Lancet*.

"Preferable to some wines we have tasted under the name of champagne."—*Medical Press*.

"Clear and transparent, and very pleasing to the palate."—*Medical Times and Gazette*.

"Has the purest Jamaica Ginger aroma, and ought to attain great popularity."—*The Chemist and Druggist*.

THE COMPOUND ESSENCE

(Guaranteed Pure and Free from Capsicum).

This Essence, which is an addition of VANILLA, LEMON, and OTHER FLAVOURS to the above, is strongly recommended for the manufacture of *Ginger Beer, Wines, &c.*, to which it imparts with the *Ginger* a *Peculiarly Fine Fruity Flavour and Aroma*.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

THE COMPOUND FORTIFIED ESSENCE

Specially adapted for the Manufacture of the FINEST

GINGER ALE.

This sence is strongly recommended for the manufacture of the finest *Ginger Ale* and *Ginger Beer*. It imparts, with the exquisite *Ginger Aroma* of the first-mentioned Essence, a peculiarly fine *fruity flavour* combined with the fullest amount of *fragrance and pungency*.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

HAY'S GINGER ALE ESSENCE,

HIGHLY CONCENTRATED.

This Essence is a complete Bouquet of the finest Ginger, Lemon, and other flavours, in a highly concentrated state.

Ginger Beer and Ginger Ale made with this Essence will possess an amount of Aroma, Flavour, and Quality that have hitherto been without precedent, and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.

GINGER ALE EXTRACT

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING

This tract is strongly recommended for the manufacture of *Ginger Ale*, to which it imparts an unusually *Fine Flavour* and *Great Brilliancy*, at a cost of a little under 1d. per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.

PREPARED BY

W. HAY, Manufacturing Chemist, BEVERLEY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

SPECIAL NOTICE TO THE TRADE.

Messrs. RIDGE & CO. beg respectfully to announce that on and after this date, 1st October, 1883,

DR. RIDGE'S PATENT COOKED FOOD

FOR INFANTS AND INVALIDS

will be advanced in price, viz.:—The One Shilling Packets will be advanced to 108s. per gross, instead of 96s. per gross, as heretofore.

The discount upon £50 (fifty pounds) parcel (or upwards) will be subject to 5 per cent. discount, instead of 15 per cent. discount, as heretofore.

No discount whatever will be allowed upon parcels under £50 in value.

Remittances with order in every case.

Cheques and Post Office Orders to be made payable to P. J. RUMNEY.

Cheques crossed London and Provincial Bank.

Postal Address—



By Authority.

DR. RIDGE'S ROYAL FOOD MILLS

LONDON, N.,

ENGLAND.



By Authority.

Dr. Ridge's Food.**Dr. Ridge's Food.**

DR. RIDGE'S

PATENT (COOKED)

FOOD

**Dr. Ridge's Food.**

FOR

Dr. Ridge's Food.

INFANTS AND INVALIDS.

DR. RIDGE'S FOOD has maintained its supremacy notwithstanding the many imitations in the market, and still enjoys a larger and readier sale than any other Food, the demand daily increasing. Superior quality, thoroughly cooked, and supplied in a very compressed form.

N TINS ...	{	RETAIL PRICE ...		WHOLESALE ...		9s. 0d. per doz., nett cash.		
		1s. 0d.	...	2s. 6d.	...	22s. 0d.	"	"
		2s. 6d.	...	5s. 6d.	...	48s. 0d.	"	"
		5s. 6d.	...	10s. 6d.	...	96s. 0d.	"	"
		10s. 6d.	...		...

The above Prices apply also to "**DR. RIDGE'S PREPARED OATMEAL**" and "**DIGESTIVE BISCUITS.**"

DR. RIDGE'S FOOD is also supplied in Packets (for Home Consumption ONLY):

IN PACKETS ...	{	RETAIL PRICE ...		1s. PACKETS, 27s. 0d. per 1/2-gross Box, nett cash.				
		1s. 0d.	...	6d.	6d.	"	27s. 0d.	" 1/2 "
		6d.	...	2d.	2d.	"	9s. 0d.	" 1/2 "

The above quotations are subject to a discount of 5% on £50 order or upwards.

NO DISCOUNT WHATEVER ON ORDERS UNDER £50 IN VALUE.
REMITTANCES WITH ORDER IN EVERY CASE.

Cheques and Post Office Orders to be made payable to **P. J. RUMNEY.**

RIDGE & CO.'S

ROYAL FOOD MILLS,

LONDON, N.,

ENGLAND.

Postal Address—

Royal Food Mills, London, N.

NELSON'S EXTRACT OF MEAT.

CHEAPEST IN THE WORLD.—HALF THE PRICE OF LIEBIG
OUNCE PACKETS, 4d. EACH.

E. LAZENBY & SON (6 EDWARDS STREET, PORTMAN SQUARE.) Sole Proprietors of the Celebrated Receipts and Manufacturers of the Pickles, Sauces and Condiments so long and favourably distinguished by their name, beg to remind the public that their labels are affixed to the choicest description of goods only, that every article prepared by them is guaranteed as entirely unadulterated and may be obtained of Grocers, Italian Warehousemen and others.

HARVEY'S SAUCE.—CAUTION.—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle bears the well-known label signed "ELIZABETH LAZENBY"; this label is protected by perpetual injunction in Chancery of the 9th July 1858 and without it none can be genuine.

18 TRINITY STREET, LONDON. S.E.

Elizabeth Lazenby

KREOCHYLE BARFF AND WIRE. LIQUID MEAT SPECIALTY FOR INVALIDS.

To be obtained of MESSRS. BARCLAY & SON, Farringdon Street, MESSRS. ROUSE & CO., Wigmore Street, MESSRS. BURGONYE, BURBIDGES & CO. Coleman Street, MESSRS. NEWBURY & SON, King Edward Street, of all principal Chemists, and of "THE KREOCHYLE COMPANY," BUCKINGHAM ROAD, LEYTONSTONE, E.

Prices—Retail, 5s. per pint; 2s. 9d. per half pint; 1s. 6d. per quarter pint.

"RAMORNIE." **LIEBIG'S EXTRACT OF MEAT**
REDUCED PRICES!!!

7-lb. Tins	per lb.	5/11	each	41
1-lb. Jars	"	6/2	per d.	74
1-lb. Jars	"	8/4	"	38
4-oz. Jars	"	8/7	"	19
2-oz. Jars	"	7/0	"	10
1-oz. Jars	"	7/8	"	5

Write for Detailed Price List to the Australian Meat Co., 9 & 11 Fenchurch Avenue, E.C.

10 lbs. Carriage Free.

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their **SOLE ADDRESS**, No. 11
LITTLE STANHOPE STREET, MAY-
FAIR, W., and caution the trade to

BEWARE of IMITATIONS.

BRAND & CO'S
SPECIALTIES FOR INVALIDS
ESTD 1835
ESSENCES OF BEEF,
MUTTON, VEAL & CHICKEN,
BEEF TEA, TURTLE SOUP & JELLY,
MEAT LOZENGES &c.
SOLE ADDRESS
NO. 11
LITTLE STANHOPE
STREET,
MAYFAIR.

NESTLE'S MILK FOOD.

THE

"PERFECT FOOD FOR INFANTS."

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine-cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food of infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet. Nestle's is the original and genuine Milk Food or Powder. The extensive demand for this Food, its well-known superiority and universal recognition by the medical profession, has produced the inevitable imitations. The Trade and the Public are hereby cautioned. Nestle's Milk Food has stood the test of years. Take no other under any pretence whatever.

NESTLE'S MILK FOOD is put up in Tins, packed in lined cases when ordered specially for the Export Trade. Is highly concentrated, and in a perfectly dry state. Will keep good in any climate.

For exportation the Food is a very desirable article, and is much sought after among people of all nationalities in all parts of the globe. Its advantage as an article for export consists in

Its uniform quality. Its purity. The simplicity of its preparation for use.

Its freshness in warm climates, where cow's milk soon becomes tainted.

Foreign and Colonial Importers should obtain their supplies through any Wholesale Firm in Great Britain, or Shipping Agent, thus ensuring fresh stock and lowest prices.

LONDON DEPOT: 9 SNOW HILL, E.C.

SEVEN INJUNCTIONS have been granted during the past few months.

CAUTION! "YORKSHIRE RELISH."

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Justice, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

Solicitor to the Trade Mark Protection Society.

FRY'S MALTED COCOA

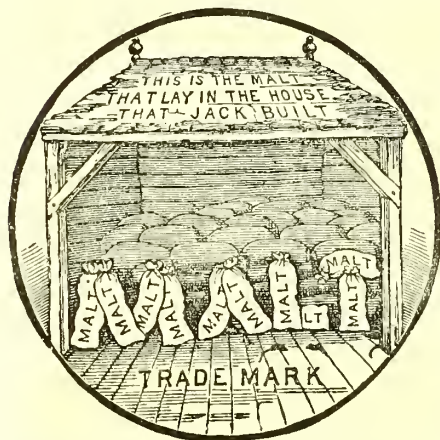
(PATENTED).

A Combination of FRY'S Pure COCOA EXTRACT with

ALLEN & HANBURYS' CONCENTRATED EXTRACT OF MALT.

S. FRY & SONS, BRISTOL AND LONDON.

CONROY'S MALT COFFEE



Conroy's Malt Coffee has received the following Certificates amongst many others.

"Undoubtedly a nourishing and health producing article of diet."—*Edward Davies, F.C.S., F.I.C., &c., Liverpool.*

"Most beneficial in cases of atonic indigestion."—*E. Adam, M.R.C.S., England.*

"Genuine Coffee gives me indigestion. Your Malt Coffee is entirely free from this objection."—*S. Whitaker, Waterfoot, near Manchester.*

"Dyspeptics who could never take the ordinary coffee or date coffee can take the Malt Coffee, and with the most beneficial effects."—*Dr. Lloyd, Bangor.*

"I have frequently recommended your Malt Coffee in cases of weak digestion, invariably with satisfactory results."—*W. Ball, Senior Surgeon to the Convalescent Institution, New Brighton.*

"A most excellent combination."—*A. W. Postans, F.C.S., London.*

"Very palatable and marvellously easy of digestion."—*Society, October 21, 1882.*

"It can in many cases be taken when ordinary coffee disagrees."—*Medical Journal, July 29, 1882.*

"Refreshing, and at the same time tonic, spirit-infusing, yet absolutely non-toxicating, palatable and wholesome to an eminent degree."—*The Colonies and India, 29th Sept., 1882.*

"Both pleasing to drink, and easy to digest."—*The Anti-Adulterator, October, 1882.*

"The combination ought, therefore, to prove the health of those who consume it."—*Globe.*

"Malt Coffee, the new temperance beverage, would seem to make the nearest approach to what is required. It is its own way as beneficial as pure coffee, especially strengthening and nutritious."—*Morning Post.*

IT IS MADE IN THE SAME WAY AS ORDINARY COFFEE.

Pamphlets containing Testimonials from Eminent Scientific, Medical and Gentlemen of the highest position, may be had Free for Gratuitous Distribution.

In cases of 56lbs. each, put up only in 1-lb. and ½-lb. tins. Each Tin is protected by an Excise Stamp under Regulations of the new Inland Revenue Bill of August 3, 1882.

PREPARED ONLY AT THE

MALT COFFEE WORKS, 34 FLEET STREET, LIVERPOOL.

SOLE PROPRIETORS—

EVANS, SONS & CO., 56 Hanover Street, LIVERPOOL.

EVANS, LESCHER & WEBB, 60 Bartholomew Close, LONDON E.C.

QUOTATIONS ON APPLICATION.

PHILLIPS & CO.,

IMPORTERS OF

TEAS, COFFEES, AND MANUFACTURERS OF PURE, PLAIN, AND AN COCOAS AND CHOCOLATES,

8 King William Street, City, London, E.C.

Warehouse and Show Rooms in adjacent premises, 13 and 14 ABCHURCH LANE, and at 10 and 11 GRANGE HOTEL BUILDINGS, CHARING CROSS.

The Agency for the Sale of PHILLIPS & CO.'S Teas and Coffees, Cocoas and Chocolates, will be found very profitable.



TRADE MARK.

R. J. FULLWOOD & CO.

The Original Inventors of the Prime, Rich, Golden-colour Cake and Fluid Extract of

ANNATTO.

TO BE HAD GENUINE ONLY FROM THE STEAM ANNATTO WORKS,

31 BEVENDEN STREET (late 24 Somerset Place), HOXTON, LONDON.—Established 178

FIRST CLASS MEDAL, NEW ZEALAND, 1882.

PHILLIPS & SONS' DANDELION COFFEE

Castle Square, SWANSEA; 12 Arthur Street West, LONDON BRIDGE.

Be particular in noting London Address, as we have no connection with a Retail Firm of same name.

CHEMISTS' TEA AGENCY.**WAIVER & DALRYMPLE'S**

BROKEN-LEAF TEA, 1s. 8d. per lb.
MONEY SAVING TEA. ABSOLUTELY PURE.
 The tea is leaf from some of the finest India and China Teas. Produces a cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WAIVER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.
 the **PRICE EVER SOLD.** Great strength and a most useful tea where there is a large consumption. Recommended to all who wish to save in their tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WAIVER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and
BRADY STREET, LONDON.

P.O. Office at head office. Bankers, the National Provincial Bank of England.

THE WELL-KNOWN "LONDON TEAS"

ARE ONLY SUPPLIED WHOLESALE BY

THE GREAT TOWER ST. TEA CO.

(LIMITED).

Sifting from Fine Tea for Retail at 1/4 per lb.

The London Whole-Leaf Tea " 1/8 "

The London Broken Tea " 1/8 "

The London Two-Shilling Tea " 2/- "

The London Two-Shilling Indian Tea, " 2/- "

The London Assam Broken Tea " 2/8 "

AND OTHER FINER BLENDS.

Orders a full Sample Parcel. The Quality never deteriorates.

A. HORATIO JONES, Managing Director.

The Great Tower Street Tea Co. (Limited), 39 Great
 Tower Street, London, E.C.

KANGRA VALLEY**India Tea Growers' Association,****NEW COVENTRY STREET,****LICESTER SQUARE, W.****PROSPECTUS.**

The object of the Planters who have formed this Association, is to establish a business for the direct supply of Tea from the Plantations of the Kangra Valley to the public.

So great a success has attended the efforts of the promoters of the Association that it has become necessary that one of the Planters should reside in England to manage its affairs.

The distinctive feature of the business of this Association is that the tea is delivered to consumers in the original One Pound tin-foil packed parcels in which it is packed in the Valley, and it is guaranteed to be absolutely pure.

The Association hopes that it may, without presumption, safely recommend this Tea to the public, believing that it will continue to give the greatest satisfaction.

Read *Am's Indian Mail*, Feb. 28, 1883:—" * * * We can speak from our knowledge of the excellence of the Teas of the 'Kangra Valley Indian Tea Growers' Association,' and as in advertising them we are also benefiting those who take advantage of their enterprise, we append their most prospectus, which promises no more than they are well able to perform."

These teas, retailing respectively at 4/3, and 2/6, can be purchased in any quantity, either direct from the Store, 7 New Coventry Street, or from Messrs. Barclay & Sons, 95 Farringdon Street, Agents to the Association.

Special Terms granted to all Chemists and Druggists, to whom a Teas, on account of their absolute purity, are particularly recommended.

SEVEN PRIZE MEDALS AWARDED.

**GOODALL'S
HOUSEHOLD SPECIALITIES.****YORKSHIRE RELISH.**

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each *Yorkshire Relish Label* is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & Co. No other is genuine.

**Goodall's
Baking Powder**

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**Goodall's
Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. 1 1/2d. and 2s. 3d. each.

**Goodall's
Custard Powder**

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes 6d. and 1s. each.

**Goodall's
Ginger Beer Powder**

Makes Three Gallons of the Best Ginger Beer in the World for 3d.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. Sold in Packets, 3d. and 6d. each.

**Goodall's
Blanc Mange Powder**

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's
Egg Powder**

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One penny packet will go as far as four eggs; and one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO., White Horse Street, Leeds.

A Monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had most free on application.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

KETCHUP

MANUFACTURERS

FARROW & CO., Holbeach, Lincolnshire.

THE DUPLEX LEVER CAPSULE CO., LIMITED

ARE NOW PREPARED TO SUPPLY THEIR

PATENT "SPRING LOCK" CAPSULE STOPPER.

Instantaneously self-locking. Saves 75 per cent. of time in stoppering. Can be put on and taken off repeatedly. Is handsome, efficient, and cheap. Neither corkscrew, wire, wax, indiarubber, broken cork, nor dirt. Is absolutely air and water tight.

For Chemical preparations, Citrates, and Salines, it is without an equal, being absolutely air-tight and dearer than the present inefficient stoppers.

FOR PRICES AND PARTICULARS APPLY AT THE CHIEF OFFICES:

5 COPTHALL BUILDINGS, LONDON, E.C.

LIPSCOMBE'S

44 Queen Victoria St. City

and Temple Bar, London.

FILTERS

THE LARGEST MANUFACTURERS IN THE WORLD.

These Filters are a perfect safeguard against Typhoid Fever, Cholera, and Blood Poisoning

ILLUSTRATED PRICE LIST FREE, WITH CAUTION, TO THOSE PURCHASING A WATER FILTER
VERY LIBERAL TERMS TO THE TRADE.

M. A. CRAVEN & SON,

WHOLESALE AND EXPORT CONFECTIONERS

MAKERS OF

Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,

IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.

NEW YORK CONFECTIONERY WORKS

YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges
ESTABLISHED 1843. PRICE LIST ON APPLICATION.



HOGES HOREHOUND HONEY

consider your Horehound Honey the most wonderful remedy I have ever tried, possessing properties which are nothing short of marvellous for cure of sore throat and coughs.

"MARIE RÔZE."

"Your Honey is delicious.—Yours truly, ELLEN TERRY."

WHAT IT IS.

An uncompounded product of Nature secreted in the petals of horehound blossoms, and gathered by the honey bee.

IN the soft and equable climate of Southern California the mountain slopes, as they descend towards the Pacific Ocean, are often found to be one perpetual carpet of Horehound Flowers from spring until autumn. This plant blooms after nearly everything else has faded. It stands excessive droughts, and yields a profusion of flowers almost unequalled in the vegetable kingdom, which are reservoirs that yield this most wonderful remedy. These miniature laboratories stamp with faultless certainty this Horehound Honey with a colour and flavour peculiar to itself, and can be as easily distinguished as heather and clover honey etc. It is tonic, stimulant, and laxative, affording speedy relief for Coughs, Colds, Consumption, &c. Hoge's Horehound Honey cannot be honestly imitated.

We guarantee Hoge's Horehound Honey to sell. If you are not satisfied with it after stocking it, we will refund price paid us on its return to us.

Interesting Descriptive Pamphlets, profusely illustrated, showing the Method of Keeping Bees in California, also Hand Bills, supplied to customers gratis.

PUT UP IN 1s. 1½d. BOTTLES.

**W. M. HOGE & CO., 64 KING WILLIAM ST.,
LONDON, E.C.**

DEALER in ENGLISH, AMERICAN, FRENCH, and SWISS HONEY, in 1-lb., 2-lb., 7-lb., 14-lb., and 28-lb. jars or tins, and in original casks. Also dealers in BEESWAX.

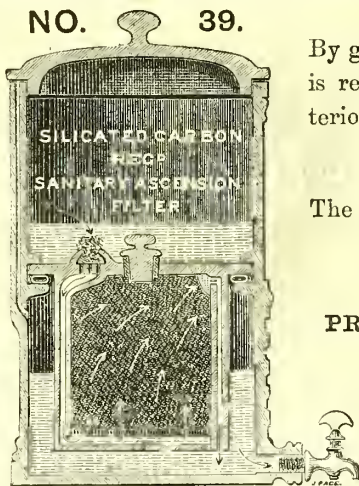
SILICATED CARBON REGD. SANITARY ASCENSION FILTER

First and Highest Award at the International Medical & Sanitary Exhibition, South Kensington.

An ASCENSION FILTER, all parts of which are accessible for cleansing, and in which the Silicated Carbon can be renewed by the purchaser when required.

The water is trapped of the grosser impurities before reaching the Silicated Carbon, through which it passes upwards in the direction shown by the arrows.

NO. 39.



By giving a half turn the inner valve is released and the whole of the interior of the Filter is then accessible for cleansing.

The Silicated Carbon can be renewed as often as necessary.

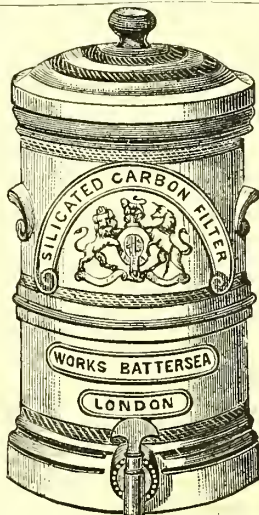
PRICE COMPLETE:

- No. A, 1 gallon
- No. B, 2 gallons
- No. C, 4 gallons

DOMESTIC

Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

All sizes of this pattern can now be had with Ice Compartment, which renders this Filter the most perfect of Refrigerators.



FILTER, NO. 27

PRICES.

No. O, capacity $\frac{1}{2}$ gallon	10s. 6d.
No. A, " 1 "	14s. 6d.
No. B, " 2 "	21s. 0d.
No. C, " 4 "	32s. 0d.
No. D, " 6 "	42s. 0d.
No. E, " 8 "	52s. 0d.
No. F, " 12 "	70s. 0d.

MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR

Mansions, Schools, Hospitals, Public Institutions, Breweries, Distilleries, Soda Water Manufactories, Dye Works,

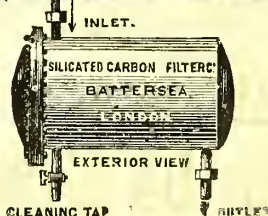
And all other Establishments where large quantities of

PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:—

- A, $\frac{1}{2}$ -inch pipe £6 6s.
- B, 1-inch pipe £9 9s.
- C, $1\frac{1}{2}$ -inch pipe £15 15s.
- D, 2-inch pipe £26 6s.



This Filter is extremely simple in construction and can be either connected with a Cistern attached to the Main Service Pipe. It requires no attention beyond an occasional opening the Cleansing Tap, and will deliver a supply of purified water at a rate of 5 to 12 gallons per hour, according to size.

Special Contracts entered into for Large Works, Institutions &c., &c.

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE
Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters, wholesome water may be drawn from any pond or stream by simply inverting the Filter and drawing the water through the rubber suction.



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

- Each of these portable Filters may be
- A.—Pouch Filter, 2½ inches diameter, in porcelain, with glass stop piece, in decorated metal box 2 6
 - B.—Ditto, inches diameter, in best stoneware 5 0
 - Ditto with silver-plated tap 7 0
 - C.—Bottle Filter, 5 inches diameter, with silver-plated tap 12 0
 - D.—Pouch Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and Zululand, and to the Ashantee and Egyptian Expeditions 3 6
 - E.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits 5 0

TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

- O, 2s. 6d.; A, 4s.; B, 5s. 6d.
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24.

- O, 2s. 6d.; A, 4s.; B, 5s. 6d.

DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.

- A 35s.
- B 80s.
- A, with Ice Compartment 42s.
(New Patent.)
- B, with Ice Compartment 100s.
(New Patent.)

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

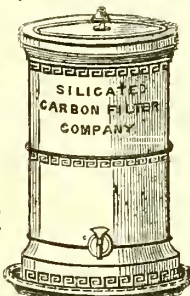
affording a

COOL DRAUGHT OF PURE WATER.

- Price, with Silver-plated Tap 81s. 6d.
- Ditto, ditto, with Ice Compartment 42s. 0d.

Capacity Two Gallons.

Specially adapted for Tropical Climates.



SILICATED CARBON (Regd.) ASCENSION FILTERS.

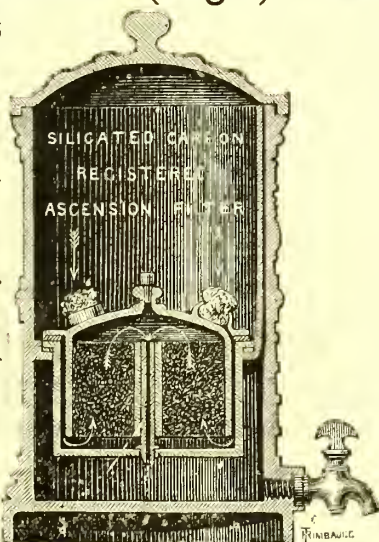
The most efficient known Filter

PRICES:

No. 38.

- 1 Pint, 2/6 ea.
- 2 ,, 4/-
- 3 ,, 5/6

The Water passes upwards through the Silicated Carbon in the direction shown by the Arrows in the Drawings.



No. 38.

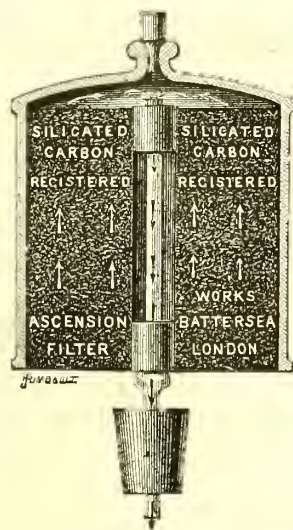
for Table and Domestic Use.

PRICES:

No. 37.

- 1 Gal., 18/- ea.
- 2 ,, 26/-
- 4 ,, 38/-

The inner blocks being movable, by attaching an India-rubber tube they can be converted into Pocket or Travelling Filters.



SECTION OF NO. 38.

WRITE FOR FULL LISTS TO THE

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

HEPATICUS

FOR JAUNDICE AND ALL LIVER COMPLAINTS

Biliousness, Indigestion, Weakness, Sick Headache, Loss of Appetite, Nervousness, and Dyspeptic Affections, General Debility, Spasms, &c.

It quickly cures the above complaints of however long standing. **PURIFIES AND CLEANSSES THE BLOOD**, and restores the system a healthy tone. **NO CHANGE OF DIET IS REQUIRED.** Those with weak constitutions may take it with entire confidence, it being adapted to all ages of either sex.

Sold in Bottles 2s. 9d. each.

In all Countries this Medicine is invaluable, but more so in the Tropics, India, and all Hot Climates, and we particularly call the attention of Shippers and our friends in the Colonies and Abroad to it.

For Terms apply to the Proprietors—**TOMLINSON & HAYWARD, Lincoln, England.** Manufacturers of the "Glycerine Dip" for Sheep, "Fly Powder," "Butter Powder," "Castor Oil" and "Sheep Ointments," the Original Luddington Oils for Horses, Sheep, and Cattle, &c.

PRINTED MATTER AND TERMS SENT ON APPLICATION.

COOPER'S SHEEP DIPPING POWDER

Is soluble in Cold Water, and should be used in preference to any other Dip,

FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.

This Dip has been in use for Forty Years, and has never been equalled by any other; it is of uniform strength, does not stain the wool, is suitable for all climates, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

It supersedes all Carbolic and other Liquid Dips, being so much more reliable and lasting in its effects.

Counter Bills and Directions in English, Spanish, Dutch, &c., may be had free on application.

COOPER'S FLY POWDER

For Preventing the Fly Striking Sheep & Lambs, Destroying the Maggot, &c.

In 1-lb. Packets, to Retail at 6d.; and 2½-lb. perforated Canisters, to Retail at 1s. 4d.

This Powder may also be had labelled with the *Retailer's own Name and Address*, provided not less than one gross packets or 6 dozen canisters be taken at once.

SPECIALLY LOW QUOTATIONS FOR QUANTITIES IN BULK.
Samples on application.

Terms and further particulars may be had of the Proprietor,
WILLIAM COOPER, M.R.C.V.S., Chemical Works, Berkhamsted, Herts.

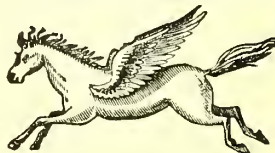
EDWIN HELLIAR, MANUFACTURING CHEMIST, YEovil,

Begin to call the attention of the trade to the following specialties, which will be found worthy of a place in the stocks of all Chemists, and in favour of an order, either direct or through the leading London Agents, will much oblige.

Fly Tick and Lear Powder, for dressing Sheep and Lambs	in ts, 1/2
Foot Rot Paste	in ts, 1/2
Condition Powders for Horses	in ts, 2/6
Canino or Dog Soap	in ts, 2/6
Worm Powders for Dogs	in ts, 2/6
Balsam Honey for Coughs	in ts, 2/6
Vermin Killer	in ts, 2/6

London Wholesale Agents:—HOVENDEN & SONS, BAILEY & SANGER & SON, W. EDWARDS & SON. Exeter:—EVANS & ADD.

USUAL TERMS.



VESICO SUDORIFIC

VESICO SUDORIFIC (Registered) will relieve and cure Splint, Spavin, Ringbone, Sideness, Hock, Curb, Windgall, and strengthen the leg of Horses. Also for Tumours in Cattle. Price, 2/6 size 1 per 5/size 48/ per doz., with usual discount. PROPRIETOR.

C. W. GREGORY, V.S., BRISOL.

Wholesale Agents:—London—BARCLAY & SONS; SANGER & SONS; Sutton & Co.; F. Newbery & Co.; R. Hovenden & Sons, London; Raimes & Co., Edinburgh, York, and Liverpool; Ravensdale Mill Co., Dublin; B. & Co., Manchester; Taylor, Gibson & Co., Newcastle-on-Tyne; Goodall, Backhouse & Co., Leeds; and of all Wholesale Agents.

SPRATTS PATENT DOG MEDICINES AND SCAM TASTELESS APERIENT BISCUIT FOR DOGS

The *Field*, 28th January, 1882, says:—"The satisfactory results we obtained leave no doubt in our mind as to the value of the invention."

"LOCURUM"

(PATENT)

CURES ALL KINDS OF CUTS, BRUISES, AND WOUNDS IN MAN AND ANIMALS.

"SPRATTS PATENT," Bermondsey, S.E., or order through your Wholesale Agent.

Wholesale Agents for the Soap and Dog Medicines:—Barclay & Sons; Sanger & Sons; Sutton & Co.; F. Newbery & Co.; R. Hovenden & Sons, London; Raimes & Co., Edinburgh, York, and Liverpool; Ravensdale Mill Co., Dublin; B. & Co., Manchester; Taylor, Gibson & Co., Newcastle-on-Tyne; Goodall, Backhouse & Co., Leeds; and of all Wholesale Agents.

HOSE, CATTLE, AND SHEEP MEDICINES.

BY ROYAL APPOINTMENT.



DAY, SON & HEWITT,



INVENTORS AND SOLE PROPRIETORS OF THE

ORIGINAL "STOCK BREEDERS' MEDICINE CHESTS,"

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patroned for 50 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

No. 2 MEDICINE CHEST contains the following matchless remedies:—

"CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.

"GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.

"RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.

"RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.

"BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.

"GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6 6s. Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Awards—Certificate of Merit by the National Agricultural Society of Victoria, Australia, 1871; President's Medal, Spalding, 1872; Silver Medal, Manchester and Salford Show, 1874; Silver Medal, Preston, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford, 1875; Silver Medal, Evesham, 1875; Special Prize, National Agricultural Society of Victoria, Australia, 1875; Medal, Chester, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Newcastle-on-Tyne, 1877; Silver Medal, Knutsford, 1878; Medal, North Berwick, 1878; Medal, London, 1878; Silver Medal, Derby, 1879; Silver Medal, Wellingborough, 1879; Medal, Bentham, 1880; Medal, Melbourne Exhibition, 1880; Silver Medal, Doncaster, 1881; Silver Medal, Gold Medal, Christchurch, New Zealand, 1882; and Silver Medal, Canterbury, 1882.

CAUTION.—Beware of Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burbidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, Hovenden & Sons, and all Wholesale Agents, in London: Hood & Co., Melbourne: Kemthorne. Prosser & Co., Dunedin and Auckland: Fairthorne & Co., Launceston.

HORSES.—LIEUT. JAMES' BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).

THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICES:—

1 oz. pots from	14/- per doz. to	12/6 per doz.	1 lb. pots from	£4 4 0 per doz. to	£4 0 0
2 "	£1 5 6	£1 3 0	1 "	7 16 0	7 10 0
4 "	2 8 0	2 4 0			

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, BUTLER & CRISPE, 4 Cheapside; NEWBERRY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES & CO., 10, Gilling, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to

R. J. JAMES, South Retford, Notts.

JAMES. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the family possessing the receipt to make and sell this Blister."—R. J. JAMES.

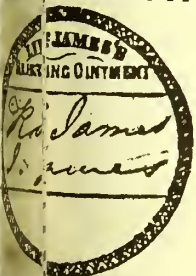
ESTABLISHED 1833.

ORSE.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Co., 101 Victoria Street; Newbery & Son, 37 Newgate Street; Raimes & Co., 95 Farringdon Street; Lynch & Co., 171A Aldersgate Street; W. Mather, 10, Gilling, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to R. J. JAMES, South Retford, Notts.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, 10, Gilling, Cork; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kemthorne, Prosser & Co.; CALCUTTA: Smith, 10, Gilling, Cork.

H. JAMES, Sole Manufacturer, STANFORD, FARRINGDON, BERKS. Advertise "Bell's Life" 49 years. Beware of Spurious Imitations.

FOSTER'S PEARL-COATED

ROUP PILL

Retail, 2d., 6d., 1s., and 2s. per box.

These Pills have found great favour wherever introduced, being a successful remedy for this troublesome complaint, the price, 2d., placing them within reach of the poorest keeper of Fowls, supplying a want long in demand, the high prices usually charged precluding all but the well-to-do fancier.

An Agent wanted in every Town. Sample dozen of the 2d. size, post-free, 1s. 6d.

Agents' addresses periodically advertised in the Poultry Papers, thus bringing them directly before the notice of consumers.

Wholesale Agents: London: W. Edwards & Son, 157 Queen Victoria St., E.C.; Wyleys & Co., 223 Upper Thames St., and Coventry; Southall Brothers & Barclay, Birmingham; Whitehead, Hulbrook & Co. (successors to W. Mather), Manchester.

PROPRIETOR:

F. F. FOSTER, Navigation Street, BIRMINGHAM.

HAMBO SPEKLED.



TRADE MARK
REGISTERED.

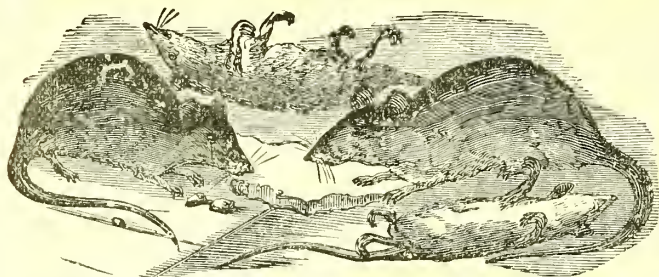
All Orders by Post receive immediate attention.

LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSEILLES, & 55 PENTONVILLE
ROAD, LONDON, N.

BATTLE'S VERMIN KILLER. { Mice eat it and die on the spot.

Has an immense Sale, and wherever introduced never fails to produce a great effect. Mice appear attracted to it as by magic, eat it readily, and die on the spot. Rats usually die in their runs. Pans, troughs, &c., may be cleared at once, either from Stacks, Hoops, or other places. **TESTIMONIALS.**—Thousands might be quoted. From Mr. THOMAS COLTON, Agent for Selby:—A friend of mine purchased a Packet of your VERMIN KILLER last night, and to-day he called in to say that he had found fifteen dead mice, and used part of a packet. From Mr. EDWARD STURRY, Finsbury:—I duly received by post the Packet of your VERMIN KILLER, and as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets. Leamington, 1877.—I have tried BATTLE'S VERMIN KILLER, and find it most effectual in clearing my premises of LARGE QUANTITIES OF VERMIN. THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each. **SOLE PROPRIETOR:** Mr. J. R. BATTLE, Chemist, Lincoln. No Chemist or Storekeeper should be without a supply.

“HUNTER’S” INFALLIBLE VERMIN DESTROYER**IS THE MOST DEADLY.**

Cannot be excelled.

Thirty-seven years' reputation.



Always gives satisfaction.

SUPPLIED ON THE BEST TERMS BY ALL THE WHOLESALE HOUSES.

Manufactory—DEWSBURY. ENGLAND**STEINER'S VERMIN PASTE,**

For destroying Rats, Cockroaches, &c.

3d., 6d., and 1s. Glass Jars; 2s. 6d. Tins.

Warranted to keep for Export.

STEINER'S VERMIN KILLER (POWDER),

FOR DESTROYING MICE.

1d., 3d., 6d., and 1s. Packets.

STEINER'S PRIME DALMATIAN INSECT POWDER.

The most energetic Insecticide. Kills Bugs, Fleas, and all offensive Insects.

Quite harmless to Domestic Animals.

1d., 3d., 6d., and 1s. Tins.

Also in 7-lb. Tins and in Kegs of 120 lbs., as imported.

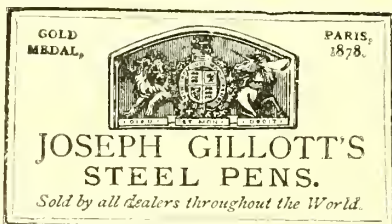
STEINER & CO.

ARE SOLE PROPRIETORS AND MANUFACTURERS OF

T. JAMES' SUPERIOR PHOSPHOR PASTE.

1d., 3d., 6d., and 1s. Glass Jars.

May be obtained through all the Wholesale Houses, OR DIRECT FROM

THE WORKS, HENRY ST., LIMEHOUSE, LONDON.**JOSEPH GILLOTT'S STEEL PENS.**

Sold by all Dealers throughout the World.

INDEX TO ADVERTISEMENTS,

See pp. 41 and 42.

RAT POISON.

“Among many preparations for killing Rats I have never found one that answers so well as that I obtained from

Messrs. SANFORD & SON, of Sandy, Bedfordshire. From One Dressing I found 120 dead rats.”—G. WINTERBURN, Walden, Essex.

The Poison can be obtained in Boxes, at 1s. 2d. Postage, and upwards. A Liberal Discount allowed to the Wholesale of MESSRS. BARCLAY & SON, Farringdon Street, London.

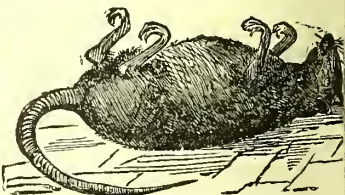
100 Rats destroyed for a Shilling by

BARBER'S PHOSPHOR PASTE.

WRAPPED NEATLY FOR THE COUNTER.

Handsome attractive Posters supplied; if conspicuously placed will ensure a constant sale.

Kills Rats, Beetles, &c. THE DEAD VERMIN DRY UP WITHOUT SMELL.



3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER.

SOLD THROUGHOUT THE WORLD.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

Be not deceived with worthless imitations. Observe the Trade Mark.

CORNS! CORNS!! BUNIONS!

Are always Cured by the use of

BARBER'S CORN AND BUNION PASTE.

They never fail in giving relief in 10 minutes. Testimonials are given for each Box. Will well repay anyone to introduce. 8s. 6d. and 21s. per dozen, remittance with order, free of postage.

WORKS, SALISBURY. ESTABLISHED 1840.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

AFFINITAS

The new Disinfectant, is better and cheaper than any other.

NO SMELL. NO STAIN.**POWERFULLY OXIDIZING.**

Excellent terms to the trade. Sole London Agent.

A. J. SHILTON, 40 Paradise St., Birmingham.

DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS.

GABRIEL & TROKE,

Wholesale and Export Druggists and Manufacturing Chemists,
82 CITY ROAD, LONDON.

**GABRIEL & TROKE'S
REGISTERED CAPSULED HORSE BALLS,**



Manufactured solely by **GABRIEL & TROKE,**
WHOLESALE DRUGGISTS, 82 CITY ROAD,
LONDON.

MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.
SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS

Oils are prescribed. These Capsuled Balls are most convenient and safe and well adapted for export, keeping good in any climate. They are put up in Boxes of 1 dozen each. Capsuled Balls of the most approved formula on hand, and private recipes faithfully and accurately dispensed. Shipping orders promptly and carefully executed, and at lowest market prices. Price Lists of a very extensive character in the most handy referable style on application.



"FOR PIGS IN HEALTH, FOR PIGS IN DISEASE."

CALVERT'S PIG POWDERS

Are a certain remedy for all ailments to which Swine are subject
(especially Swine Fever).

They allow a fair margin of profit to the retailer. Wholesale and Export of Patent
Medicine Houses, or Proprietor—

J. H. CALVERT, 57 Geneva Road, BRIXTON, LONDON, S.W.

Beware of Spurious Imitations. Each Powder protected by the Registered Trade Mark.

**SPONG'S BEDFORDSHIRE
PIG POWDERS.**
(REGISTERED).

are **SWINE FEVER, Lameness, Fits,**
Colds, and all Pig Diseases.

being advised throughout the country, and exhibited at the
Agricultural Shows, is causing a large demand.

Handbills, attractive Show Cards, &c., forwarded on receipt of
order.

Proprietors: **SPONG & SON,**
AGRICULTURAL CHEMISTS,
Biggleswade Bedfordshire.

Agents—**BARCLAY & SONS, SANGER & SONS,**
BOURNE & TAYLOR, &c.

Price 8/- per gross, packed in 1-gross and 1/2-gross boxes.



LONDON WHOLESALE AGENTS, MAY, ROBERTS & Co., 9 CLERKENWELL RD.

NATIONAL LIFE ASSURANCE SOCIETY,
For Mutual Assurance.

2 KING WILLIAM STREET, LONDON, E.C.
ESTABLISHED 1830.

MEDICAL OFFICERS.—HERBERT DAVIES, M.D.; J. A. KINGDON, F.R.C.S.; JOHN SCOTT, M.D.

Moderate Premiums. Large Profits. Undoubted Security.

Naval Officers assured at special fixed rates, including all risk of service at home and abroad.

CLAIMS PAID 30 DAYS AFTER ADMISSION.

agents wanted in Districts at present unrepresented.

HENRY JOHN PUCKLE, SECRETARY.

THE "COUNTY CIGARETTE" BEYNON & STOCKEN

10 GRACECHURCH STREET, LONDON.

GIBSON'S

DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PATIL

Put up in 4-lb. Decorated Tins with Glass Lids, *TINS FREE*, are now being inquired for by buyers from all parts of the world, they are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of ever h

Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS. PURE MALT TABLETS.

ACID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY IND

GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either *children* or *adults*. Have an immense sale in every climate, and please everybody. Manufactured by

ROBERT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue Lon

Price Lists sent on application. Our Goods can be bought through any Wholesale or Export House in London. Indents should be marked "Gibson".



KING'S EFFERVESCENT CITRATE OF MAGNESIA

Is the BEST PREPARATION ever introduced for the use of EMIGRANTS, TRAVELLERS AND INHABITANTS OF WARM OR TROPICAL CLIMATES.

This Citrate has been patronised by Royalty, by Her Majesty's Diplomatic Agents Abroad, and was awarded a Prize Medal at the Exhibition of 1881.

NUMBERS of the MOST EMINENT PHYSICIANS AND SURGEONS in London and throughout the kingdom use **KING'S MAGNESIA** for themselves and FAMILIES, and have given certificates testifying that it is THE BEST AND MOST AGREEABLE APERIENT EVER INTRODUCED, and is in ALL CASES OF SICKNESS, HEADACHE, LASSITUDE, ACIDITY or IRRITABILITY OF THE STOMACH, CONSTIPATION, &c., &c. it can be used with the GREATEST SAFETY AND BENEFIT as a COOLING DRAUGHT in ALL cases of FEVER it has NO EQUAL.

TESTIMONIALS have also been received from CAPTAINS OF VESSELS AND OTHERS who have voyaged to the BRAZILS and other TROPICAL PARTS, and have ESCAPED THE YELLOW FEVERS, while DAILY EXPOSED TO THE INFECTION; and attribute their EXEMPTION (when they have succumbed) to the PREVENTIVE effects of **KING'S EFFERVESCENT CITRATE OF MAGNESIA**; and they RECOMMEND that the Citrate should be taken by EVERY TRAVELLER wishing to VISIT or RESIDE IN SAFETY in TROPICAL or FEVER-PREVALENT CLIMATES. A small teaspoonful of the Citrate in a tumbler of cold water makes an AGREEABLE EFFERVESCENT BEVERAGE.

Sold only in Glass-stoppered Bottles by Chemists and Druggists everywhere, and by the Sole Manufacturers and Proprietors—

BATES & CO., 1 REGENT SQUARE, LONDON, W.C., ENGLAND.

Be sure to get **KING'S EFFERVESCENT CITRATE OF MAGNESIA**, which will give entire satisfaction.

MUSTARD.

FINCH, RICKMAN & CO.'S
Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 BROKEN WHARF, UPPER THAMES STREET, LONDON.

PURE SOLUBLE COCOA

VAN HOUTEN'S COCOA

Is the only guaranteed Pure Soluble Cocoa, better and cheaper than other Coccoa, Cocoa Extract, or any Chocolate.

The *British Medical Journal*, March 27, 1869, says:—"Van Houten's Cocoa is admirable. In flavour it is perfect, and it is pure, well prepared, and rich in alkaloid," &c., &c. See also the *Lancet* &c.

Sold (full weight) in 1-lb., ½-lb., and ¼-lb. Tins, at 4s., 2s. 6d., and 1s. 6d. Sample Tins, sufficient for a family, free of charge, through your Chemist, or from

THE CHIEF DEPOT, 6 & 7 COLEMAN STREET, LONDON.

TEA AGENCY

Trade Mark, "FATHER TIME", Registered.

HENRY ROUS'S Packet and Loose Tea

Agents appointed where unrepresented throughout the United Kingdom. Samples and Prospectus post free. Bankers, the National Provincial Bank of England.—Warehouses, 376 to 378 Edgware Road, London.

SCOTT'S EMULSION

OF PURE COD LIVER OIL WITH HYPOPHOSPHITES OF LIME AND SODA

PERFECT—PERMANENT—& PALATABLE.

We are now presenting this Preparation to the notice of the Medical Profession in Great Britain, with the belief that, upon a proper examination and test, they will find its virtues unequalled by any similar combination, and it will warrant their approval and endorsement.

The high favour it has met with in all the countries where it has been presented, has prompted us to introduce it in this country, and we believe Physicians will not be slow in responding to our efforts in its introduction.

PERMANENCY as an EMULSION, remaining indefinitely without separation or change; its PALATABLENESS, the disagreeable properties of the oil being so entirely disguised that the most delicate stomach can take and retain it; its perfect HOMOGENEOUSNESS, and the excellent results attending its use in all of the conditions for which its unexcelled components are useful, give it an enviable reputation, and the universal sanction of the Medical Profession.

We trust all Chemists will procure a small quantity of the Emulsion, or at least fill all orders they may receive for it. We herewith append the opinions of some of the prominent Physicians of London, which certainly a guarantee of its especial virtues.

The BRITISH MEDICAL JOURNAL writes, July 7, 1883:—

It is palatable, and we have no doubt that many patients who have a repugnance to ordinary Cod Liver Oil would take it without difficulty.

London: 32 Keppel Street, Russell Square.
While practising in Canada I prescribed Scott's Emulsion of Cod Liver Oil extensively, with excellent results.

Yours truly,
W. F. CHAPPELL, M.B., M.R.C.S.E.

56 Mile End Road, E.
DEAR R.—Your Emulsion has really been of great service to a little patient of mine who has suffered from bronchitis continually. Will you kindly send me one quarter dozen per return, and I will remit P. or amount.

P.S.—and that children will take it very readily.
Yours faithfully,
FREDK. W. WILES, M.R.C.S., L.S.A.

4 High Street, Bloomsbury, W.C.
DEAR R.—Respecting the Cod Liver Oil Emulsion, I beg to state that I find it an admirable preparation, very palatable, and of excellent therapeutic effect.—Faithfully yours,
ALFRED W. H. LEE, L.R.C.P.

Junior Garrick Club, London, May 11, 1883.

MY DEAR SIR,—I am only a visitor here in London, and have had no opportunity of using the sample of Scott's Emulsion you so kindly sent me, but I have regularly prescribed it in America (San Francisco), and I generally found that patients derived great benefit from its continued use, and it was always tolerated much better than the ordinary Cod Liver Oil.

Yours faithfully,
F. W. HOOD, M.D.

55 Stephen's Green, E.
I have found "Scott's Emulsion with Hypophosphites" of great benefit in the treatment of phthisical and scrofulous diseases. It is extremely palatable, and does not upset the stomach, thus removing the great difficulty experienced in the administration of the plain oil.

D. P. KENNA, L.R.C.S.I.,
Dublin, April 5, 1883.
Surgeon St. Vincent's Hospital.

23 Cornhill, E.C., April 4, 1883.
DEAR SIR,—I have tried your "Scott's Emulsion" of Cod Liver Oil with Hypophosphites in a case of rickets (very young child), totally adverse to taking any kind of medicine. His nurse tells me he takes Scott's Emulsion without any difficulty, and even pleasure (sic). I certainly think he has derived considerable advantage from it myself.

Yours truly,
J. LACEY, M.R.C.S., L.S.A., L.M.D.
Med. Off. S.E. Dist. H.M. Post Office.

Pints ... per dozen, 33/- net ... Retails at 4/-
Half Pints ... „ 18/6 net ... „ 2/6

NEWBERRY & SONS,
10 KING EDWARD STREET,
NEWGATE ST., LONDON, E.C.

SCOTT & BOWNE,
MANUFACTURING CHEMISTS,
NEW YORK, U.S.A.



W. H. BAILEY & SON,

38 (late 16) OXFORD ST., LONDON,

Six doors from Hanway Street.

ESTABLISHED A.D. 1833.

FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE
WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON, MA

FIG. 1.

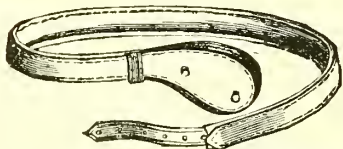


FIG. 4.

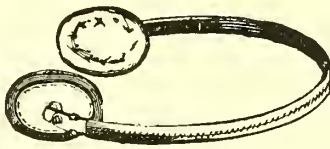
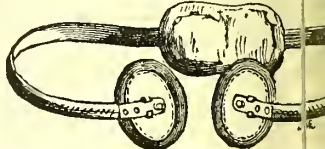


FIG. 5.



TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
" " " with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
" " " double, Fig. 5	"	3 0 0
Moc-Main Lever, single	each	0 8 0
" " double	"	0 13 6
Coles's Expired Patent, single	"	0 6 0
" " double	"	0 12 0
Scrotal Trusses, basil and chamois or moleskin, single	"	0 4 0
" " " double	"	0 7 0

SUSPENSORY BANDAGES.

No.		
1. Cotton Bags and tape under-straps	per doz.	£0 8 0
2. Cotton Oxonian, with drawing-strings	"	0 10 0
3. Silk Bags and tape under-straps	"	1 1 0
4. Silk Oxonian, with drawing-strings	"	0 18 0
5. Silk Oxonian Bags bound with elastic	per doz.	1 4 0

SUSPENSORY BANDAGES—continued

No.		
6. Silk Oxonian, superior quality, bands of buff jean, the drawing-strings	per doz.	2 14 0
7. Silk Bags, to button on, with tape under-straps	"	0 10 0
8. " " " under-straps to button	"	0 10 0

ELASTIC STOCKINGS, KNEE-CAPS, &c.

Manufactured expressly for
Export, and warranted to stand a
hot climate better than any others
in the Market.

	Silk.	Snper. Silk.	Cott.
Stockings per pair	£ s. d.	£ s. d.	£ s. d.
Knee-caps "	0 10 0	0 15 0	0 6 0
Calf-pieces "	0 6 6	0 10 6	0 4 0
Socks "	0 7 6	0 10 0	0 4 0
Wristbands "	0 5 6	0 8 6	0 3 0
Knee Stockings "	0 2 3	—	0 1 0
Belts, to draw on each	0 16 0	1 5 0	0 9 0
	0 16 6	—	—

The above may be obtained direct from the Manufacturers, or from their Wholesale and Exporters,
Messrs. Barclay & Sons, 95 Farringdon Street.

COLTHURST & HARDING

PHŒNIX COLOUR WORKS, BRISTOL,

Also Petroleum and Benzoline Stores at Gloucester

MANUFACTURERS OF

WHITE LEAD, PAINTS, AND COLOURS

Also VARNISHES of every Description

For Painters, Coachbuilders, and Japanners,

packed in Casks and Tins of 1

PAINTS IN TINS

TRADE
Ball denotes

All Colours in 1, 2, 4, 7, and 14 lbs.

SOFT SOAP, GREASES, LINSEED



MIXED FOR USE

MARK.
Colour of Paint.

All Colours in 1, 2, 4, 7, and 14 lbs.

MEAL, AND CRUSHED LIME

IMPORTERS OF

Petroleum, Benzoline, Gasoline, Turpentine, Olive, Colza, Cod, Castor, Seal, Whale, and
Oils; Tallow, Pitch, Rosin, &c., &c. Sole Proprietors of the

CELEBRATED ELECTRIC LIGHT

The most beautiful and perfect Illuminator.

OIL REFINERS AND DRY-SALTERS.

Caution and Warning.

has been said that imitation is the sincerest of flattery. However much such flattery may be enjoyed by others, we much prefer the enjoyment of the fruits of our labour and expenditure.

We take this opportunity of expressing our most sincere thanks to those members of the trade who have given us information which has enabled us to stop various piracies upon our goods, such as the infringement of the word "TABLETS" in connection with compressed drugs, also the various attempts to make use of the word "KEPLER," "HZELINE," "EDENIA," and other of our Registered Trade Names.

The contempt with which imitators are regarded by all respectable members of the trade is of itself an important safeguard, which we fully appreciate.

Our Trade Marks and Labels are secured to us by registration all over the world, and we are determined on our own behalf, and are authorised on behalf of the various firms we represent, to spare no expense in prosecuting to the fullest extent of the law every person who in any way imitates our Labels or Trade Names.

The law is clear, and the ruling of the Bench unmistakable, in making it a most serious offence to even take a single essential word or character, or any colourable imitation of such, from a registered label.—(Vide decisions on "Lactopeptine" v. "Lactopepsine," and many others.)

The substitution of an imitation for a genuine article is held by the Courts of Law to be an actionable offence, even if the package does not bear the Trade Name or Mark, but is sold in such a manner as to be likely to deceive the public.—(Vide the recent decisions in favour of the Proprietor of the Trade Name "Tivoli Beer," and others.)

We may remark that an infringement makes the offender equally liable, whether such infringement be intentional or not. The highest judicial decisions render this perfectly plain.

Very respectfully,

BURROUGHS, WELLCOME & CO.,

Importers, Exporters, and Manufacturing Chemists,
Snow Hill Buildings, London, E.C.

SEASON
1883.

"AI" COD LIVER OIL.

The price at present remains the same as last month, viz. :—18/ per Gallon in Winchester Quarts.

SPECIMEN
LABEL.



Blue Trade Mark
supplied as usual
The "En Norsk"
Labels, in Colours
at 2/6 per 100

SOUTHALL'S "SANITARY TOWEL," FOR LADIES

(PATENTED.)
Price, 20/ per doz. packets to a/c. Retail. 2/ each. *Circulars, with Press, Medical, and Nurses' Testimonials, free on application.*

EACH PACKET NOW BEARS THE SIGNATURE OF THE PATENTEES AND MANUFACTURERS.

SOUTHALL BROS. & BARCLAY, Manufacturing Pharmaceutical Chemists, BIRMINGHAM,
and Wholesale and Export Druggists.

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.
Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS and SON, 157 Queen Street, E.C.; F. NEWBERRY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; HAYDEN, 10 Warwick Square, Paternoster Row; HOVENDEN and SONS, City Road; AYRTON and SAUNDERS, Duke Street, v. GOODALL, BACKHOUSE and Co., Leeds; JNO. HEYWOOD, John Dalton Street, Manchester; JAMES HEMINGTON, 6 Mark Lane, Birmingham; HENRY HODDER, Broad Street, Bristol.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

SAVORY & MOORE'S SPECIALITIES

MEDICATED GELATINE (PATENT).

A portable, elegant, and efficient vehicle for the Administration and Use of Important Medicines.
Specially adapted to the requirements of Medical Practitioners in the Country and the Colonies.

The universal and increasing demand for this novel and effectual method of carrying, in the smallest possible form, a supply of the most important medicaments to be found in the surgery has induced Messrs. SAVORY & MOORE to

REDUCTION IN THE PRICE OF GELATINE LAMELS FOR INTERNAL USE,

which are now sold in Sheets of *Twenty-four Lamels each* at 1s. 3d. per Sheet, Quinine and Emetia Lamels excepted. In a little water, the Lamels are readily taken, and without the slightest taste.

A SMALL POCKET LETTER CASE will contain an ample supply (several hundred doses) of the Lamels of varied character and description.

DISCS FOR HYPODERMIC INJECTIONS.

Consist of small (SQUARE) discs, impregnated with a definite proportion of alkaloids.
Issued in Tubes of 25 Discs, price 2s. 6d.

The chief feature of these Discs is their instant solubility, by which hypodermic injections can be immediately obtained of uniform and reliable strength; they keep good for an indefinite period in their dry state, and are extremely portable.

DISCS FOR OPHTHALMIC USE.

Comprise minute (ROUND) discs, impregnated with a definite proportion of alkaloids.
Issued in Tubes of 100 Discs, price 2s. 6d.

"The Discs have the advantage of slowly softening and dissolving. The medicine gradually dissolves out, and is absorbed. Hence much smaller doses serve to produce the marked effect."

BLISTERING GELATINE, or LAMELLÆ CANTHARIDIS.

The most elegant, efficacious, and convenient mode of Blistering. Tins, 1s. 3d.

SAVORY & MOORE, 143 New Bond Street, LONDON.



CO. NIAL BUILDINGS, 42 CANNON STREET, LONDON, E.C.

Published on the 15th of each Month.

Subscription, 10s. per year, payable in advance; commencing from any date.

Post free to every country in the world. Single Copies, 1s. each.

Our clubbing arrangements THE CHEMIST AND DRUGGIST and the DRUGGIST'S CIRCULAR, of New York, are supplied together for 14s. 6d. per annum through us, or \$3.50 per annum through the office of our New York temporary.

Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

THE CHEMIST AND DRUGGIST is supplied regularly by arrangement with the respective Councils to all members of the following societies:—

The Pharmaceutical Society of Victoria.

The Pharmaceutical Society of New South Wales.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of New Zealand.

Literary Contents.

PAGE	PAGE
Mont. 441	Editorial Notes 514
Phar. 482	The British Pharmaceutical
The Pharmaceutical Council. 483	Conference 514
The Pharmaceutical Society of	The Protection of Phar-
Irel. 484	macy 518
The Irish Association 485	Pharmacy in Australia 521
The School of Pharmacy,	Pharmacy in Canada 522
Blo. 487	Trade Notes 523
The Irish Pharmaceutical	Obituary 524
Conference 489, 514	Gazette 524
The Executive Committee 520	Exchange Column 525
The Society of Poisons at the	Trade Reports 527
Soc. Science Congress 512	Monthly Prices Current 529
The Soc. of Methylated Finish 520	Correspondence 531



PUBLISHER'S NOTICE.

FIRM who wish to advertise in the CHEMISTS' AND DRUGGISTS' DIARY, and who have not yet given instructions, are requested to favour us with copy at earliest convenience.

We report a very successful meeting at the British Pharmaceutical Conference at Southport. The President (Professor Stfield) delivered a political address, advocating more legislative protection for pharmacists. His arguments have been supported by many of the leading organs of public opinion, and we print quotations from numerous leading articles in the medical and political journals. The Conference has resolved to meet at Hastings next year, with J. John Williams as President.

By votes to 8 the Pharmaceutical Council decide again an exhibition this year. It appears that some of the people who exhibit have ideas of promoting their business there a tendency which seems to have surprised some of the pre-mind members of the Pharmaceutical Council.

One more committee has been appointed by the Pharmaceutical Council to get on with the curriculum scheme. What has become of all the former committees appointed on this interminable subject is not explained. And the worst

of it is that the real difficulties will not begin until the details have to be arranged.

The second Hanbury Gold Medal, awarded biennially for the best original research into the natural history and chemistry of drugs, has been awarded to Mr. John Elliot Howard, in recognition of his valuable investigations in respect to the cinchonas.

The prosecution of a Hampstead chemist for sale of tincture of quinine alleged to be deficient in quinine has completely broken down, Somerset House having certified that it was of full pharmacopoeia strength. By some extraordinary process of reasoning the magistrate did not think proper to allow the defendant's costs. Mr. Alfred Preston, as a member of the Hampstead Vestry, has made a vigorous protest against such prosecutions.

A meeting of retail druggists was held at Washington last month, at which druggists from about twenty States were present, when a National Retail Druggists' Association was organised. Membership was confined to "retail druggists in the United States in business on their own account, and not connected either directly or indirectly with the wholesale trade." The annual subscription was fixed at \$1 per annum. Mr. Henry Canning, of Boston, was elected the first president. The immediate purpose of the Association seems to be to compel proprietors of, and dealers in, patent medicines to supply only those retailers who will agree to sell at marked prices, by boycotting such as will not enter into the contract. It is evident that if a sufficiently powerful organisation of retailers can be thus united, it can exercise great influence. As the grievance is an English one as well as an American one, the result of the experiment will be watched here with considerable interest.

The Board of Inland Revenue have promised a deputation from the Chemists and Druggists' Trade Association that when their officers purchase methylated finish for analysis a portion shall be left with the vendor. The affairs of the trade would seem to be in a fairly happy condition when its representative association is reduced to the necessity of agitating in regard to so small a grievance as this. Prosecutions of vendors of methylated finish have been for supplying the article with a deficient proportion of gum. Any chemist can sell methylated spirit without any gum in it at all by taking out a licence at 10s. a year, and the chemist who says he does not sell enough in the year to make that expenditure justifiable cannot lose half a sovereign per annum by giving up the business altogether. We cannot think that a solemn deputation to a Government Department in reference to such a trifle as this is calculated to develop respect for the trade in official quarters.

The scientific meetings of the season will commence next month, and probably not the least valuable will be those of the Society of Chemical Industry at its various local sections. We hear that, in addition to those in the metropolis, Manchester, Liverpool, and Newcastle-on-Tyne, sections are forming in Birmingham, Bristol, Leeds, Dublin, Belfast, and Glasgow. The results of the meetings in such a number of sections should be of great value to chemical technology. The new President (Mr. Walter Weldon, F.R.S.), is devoting much energy and ability to the work of consolidating the society and improving its already excellent journal.

In order to complete our report of the Conference in one number, we have been compelled to hold over several interesting letters and reports.

Pharmacalia.

LEGAL PROTECTION OF PHARMACY.

PROFESSOR ATTFIELD, with characteristic activity, and with no less skill, has gathered together a mass of evidence to show that pharmacy at the present moment is in a bad way. The retail trade is in a melancholy position, its professional aspect not recognised; and even its purely medical department is invaded by the unqualified and the ignorant. For this the remedy proposed is by extending, to amend the provisions of the Act of Pharmacy, and greatly to increase the number of drugs which may be deemed poisons and be sold by those only who have fulfilled the conditions which the law enjoins.

The statement of these facts, and the inferences deduced, constituted the annual address before the British Pharmaceutical Conference held at Southport.

There is no better proof of the ability with which this has been done than that the doctor's observations have been thought worthy of deliberate criticism by several of the leading journals of the day, and especially by the *Times*. It will be unnecessary to attempt an analysis of a production which will itself be carefully read by the whole body of pharmacists of Great Britain.

The President of the British Pharmaceutical Conference, standing as a barrister to plead a cause, has admirably fulfilled his task. He has something to assert, and he makes good his assertion by direct evidence: he describes an evil and points out a remedy. That our national pharmacy is in a bad way in many districts is indisputable, but it will never cease to be cultivated with eagerness so long as an examination makes it semi-professional and respectable. Men love the social position which sets them above ordinary tradesmen, and that social position they can raise indefinitely by their own acquirements. In face of the whole statement, which viewed from its special line of argument we accept as both logical and truthful, we advise the most despairing pharmacist to be content with nothing short of the major qualification if he desires to be abreast of the situation. He will force the position, though the legislature may be slow to extend or to confirm his rights. Hundreds (we leave a wide margin) do not believe this. Their sole anxiety is to discover with what little knowledge they may gain a title, the mere possession of which is proved to be of so little value. That this title is more often a label than a reality is one fertile cause of waning business.

Yet history should go for something. Our great houses, which are more held in honour now than ever, and threefold as remunerative, did not rise by accident. The men who directed them, voluntarily and with singular prudence, anticipated modern progress, and harnessed sound learning to the wheels of trade.

"These are words," said Macaulay, writing of Montgomery, "which have made, and will again make true poetry;" and we may say, this is a mode which has made, and will again make true pharmacy. But others looked on with envy, and wished for the same success without the same trouble. They, chemists and druggists, not co-operative stores, began to introduce a miserable price-list, and a degrading scale of remuneration. In their case it was somewhat honest, for they had nothing but shop capabilities to recompense; and they went naturally into outlying spots, and poor neighbourhoods, where we find them now. Then they competed with each other; cut each other's throats and sent their profits down to zero.

Having succeeded to their satisfaction, the next step was

to revive the condition of the till by foraging into other trades, chiefly ornamental wares and knicknacks.

The title chemist and druggist, &c., like the Hebrew language, was read backwards. The et cetera of the drugs were a bad second; and chemistry was nowhere.

Down came the Act of Pharmacy and did its arrival too late to avert the consequences.

Sundry retail trades perceived little difference between the druggists and themselves, and were not aware that they were poaching on their preserves, and as the one general trade articles they in turn sold trade articles. We deplore this heartily; consistently, but always with the kindest feeling for the druggist, we have advised to the inevitable result, and mournful actualities have followed the prediction.

We are unable, then, to endorse the theory of Professor Attfield that to the failure of the Act of Pharmacy is due the existing gloomy aspect of affairs; nor do we trust much to legislation to remove the element of weakness.

Still, we grant that his proposal is one step advanced, and it will be all the more potential as druggists place their chief confidence in intrinsic, personal qualifications. We believe that Professor Attfield and his coadjutors, by their teaching and example, are doing more for the prosperity of pharmacy than all the Acts of Pharmacy which have been, or will be, devised. The crisis indicated will arrive so long as their influence over the rising generation of pharmacists is maintained.

* *

PROFESSOR FOSTER'S ADDRESS TO STUDENTS.

There was a brilliant gathering at Bloomsbury square on October 3, when the prizes and certificates were distributed by the President, Mr. Carteighe, and the three professors, Redwood, Bentley, and Attfield presented their reports. The lecture theatre has become quite inadequate to meet the exigencies of these demonstrations. While the general audience were fairly accommodated, the distinguished visitors, and those to whom special courtesy to be paid, were cramped together in a most uncomfortable manner. Perhaps our energetic chief might see in the erection of a large tent in the sylvan glades opposite when next, men like John Elliot Howard, Professor Abel, Professor Armstrong honour us with a visit, as forming an additional attraction. The school, it appears, prospered both in numbers and in the hours devoted to it. While there has not been an instance of exceptional distinguished merit, there have been many cases in which students have successfully devoted themselves to the curriculum of the school, and thus, while no Peerage was awarded, the studies generally were in a satisfactory condition. The competition for the Bell prize was far greater than on any previous year, twenty candidates, drawn from widely different localities, have come forward to claim this once rather neglected honour.

So unaccountable was the want of enthusiasm in this direction some time back, that we heard it difficult to find far this method of encouragement might be considered an advantage.

A regret was expressed by several of the audience that those who were entitled to receive honourable distinctions did not make their appearance. One gentleman, who was absent under the happiest circumstances, had been selected for an important and remunerative position in Hong Kong. We hope—as we do not doubt—that he will sustain the reputation he has gained at home, rather than have become a resident in the flowery land.

Directly after the pleasant ceremony of the presentation had concluded, Professor Michael Foster—well known

his physiological researches—began his address. It was extempore, and was delivered altogether without the aid of notes. With great respect for the speaker, it does not seem desirable that this should form a precedent for future lecturers.

The subject treated of examinations—the abuses to which they were liable; the mode of making them most effective; and the value which should be assigned to them as tests of the acquirement of knowledge. He considered that generally speaking, the teacher of a class was most likely to be the best judge of the proficiency of his pupils; that compulsory study was, on principle, to be discountenanced; and that the system pursued at South Kensington, both regards teaching and examination, was a model worth of imitation. He commended as admirable the plan of entering one or, say, two subjects at a time, and then, when these had been completed, to pass on to another group. The "roaching" system would be no longer requisite, and the student's occupation would be gone.

While the Professor would not object to compulsory study and examinations, he would make an exception when the public health and their unprotected interests were concerned. Finally, one had written on the subject, "What life worth living?" and, he would ask, was it so for the pharmacist? There were the supposed good times when the physician could without let or hindrance, and with qualification, proceed to cure or kill; when the drug t, in virtue of three coloured bottles, might sell poison to his neighbour. But the one in some country villa sank down to the level of his surroundings, and the other as no higher than the common tradesman.

Never ever could regret the nobler position won for them by intellectual culture, and the personal satisfaction gained by knowledge.

Professor Foster told his story in the most captivating manner, and related it in a series of surprise sentences, the point which was ingeniously delayed to the conclusion. His hearers were kept constantly on the alert, and testified by their unrestrained applause the pleasure they had felt. We did not reopen the vexed question of examination. Its various bearings may be discussed *ad infinitum*, and many judicious things said on either side. Our students are under various regulations, from which they cannot swerve; and it has been shown conclusively that it is not our examination system which needs amendment, but the legal conditions under which pharmacy is conducted.

* *

THE HANBURY GOLD MEDAL.

It came the great event, the presentation of the Hanbury Memorial Medal to Mr. Howard.

It was offered by Mr. Carteighe in the name, not only of the contributors, but in that of the pharmacologists of all the world. In brief words the eminent quinologist expressed his thanks for the honour thus conferred. He did not forget that he was a member of the Victoria Institute, and he said that he had studied science purely and simply for its own sake. He thought the first object of desire was to be a Christian, and then a man of science; and that in his experience and belief there was no contradiction, quite the contrary, in striving to be both.

"THE FLYING SCOTCHMAN" is a term which somewhat starts one's sense of congruity, but when we come to think of it, is, at any rate, a less improbable juxtaposition of adjective and substantive than when the natives of Holland are similarly qualified. The appellation is invented to designate a very easy writing new pen with which Messrs. MacKen & Cameron, of Edinburgh, have endowed man-

The Pharmaceutical Council.

OCTOBER 3, 1883.

ALL the members of the Council were present except Mr. Andrews; Mr. M. Carteighe, President, in the chair.

THE PHARMACEUTICAL CONFERENCE.

The VICE-PRESIDENT (Mr. Atkins), as one of the delegates to the Pharmaceutical Conference, remarked on the scientific and social success of the Southport meeting.

PARLIAMENTARY.

The PRESIDENT reported that since the August meeting the Patents Act had been passed, but that, in consequence of an interview he had had with Sir Thomas Farrer, the clause relative to the use of the Royal Arms in trade had been amended to meet the wishes of the Council. The Medical Acts Amendment Bill had been withdrawn, but he believed their efforts had not been wasted, for he had reason to believe that when the Bill again came before Parliament it would contain some clause recognising the claims of pharmacists to be associated with medical men in the revision of the Pharmacopœia.

Mr. YOUNG remarked that the Society were much indebted to Mr. Symes for bringing forward the question of the Royal Arms.

On the motion of Mr. HAMPSON, a vote of thanks was passed to local secretaries and others who had assisted the Council in regard to the Medical Bill.

ADDITIONS TO THE REGISTER.

The following persons, having duly made the necessary statutory declarations and produced the necessary certificates, had been added to the register:—

Thomas Campbell McCormack, 19 St. Saviourgate, York.
Benjamin Death, 147 Charles Street, Stepney, London, E.
William Thomas Uppill, 74 Rodney Road, Walworth, S.E.

LAPSED MEMBERSHIP.

On the report of the Finance Committee being submitted a discussion took place in Committee respecting the fines on members who wished to be restored to membership. Ultimately the question was referred to the Library, &c., Committee.

BENEVOLENT FUND.

The Benevolent Fund Committee recommended four grants of 10*l.* each, and five of 5*l.* each. Also 10*l.* towards the support of the Isherwood orphans, and 10*l.* towards the apprenticeship of one of them. It was stated that six annuitants had died during the year, leaving thirty-six on the list. It was proposed to elect six other annuitants in December, and a list of ten available candidates was submitted. The recommendations were all adopted.

INFRINGEMENTS OF THE ACT.

From the report of the General Purposes Committee it appeared that Charles Campbell, 555 Rochdale Road, Manchester, had paid a fine of 5*l.* and costs, and that J. C. Copley, 51 Robin Hood Street, Nottingham, under stress of a County Court order for committal in default, had paid 8*l.* 8*s.* 3*d.* as penalty and costs. Proceedings were ordered to be taken in other cases which had been considered.

PHARMACEUTICAL EXHIBITION.

Mr. SYMES moved a resolution to hold an exhibition of pharmaceutical and chemical apparatus and other objects of general interest in May next. Mr. RADLEY seconded the motion; but, in the course of a discussion, it was remarked by several who had served on the committee of the last exhibition that it had proved impossible to get together an exhibition at all without admitting articles which were sent in simply for the purposes of advertisement, and it was also thought there would not be a sufficient variety of novelties to make it worth while to hold the exhibition at present. The motion was rejected by 10 votes to 8.

THE PROPOSED CURRICULUM.

The following resolution was moved by Mr. SCHACHT:—

That a Committee be appointed to frame, with the assistance of the Solicitor, such modifications of the bye-laws as will give effect as far as possible to the resolutions in respect of the future training of candidates for examination under the Pharmacy Act which were adopted by the Council on March 7, 1883.

Mr. Schacht said that since March last they had been a little trammelled by the possibility of an amended Pharmacy Act; but, as it was possible that might be still further delayed, he thought it was desirable to see whether the Society did not already possess the power to carry out the modifications which had been approved. As a layman, he did not say the Council had this power, but he quoted from the charter the words "for the purpose of promoting an uniform system of education for those who should practise the same" in support of his belief that they had the power to enforce a curriculum. He thought, with the assistance of their legal adviser, they would be able to accomplish what they desired.

Mr. SYMES seconded the motion.

Mr. BORLAND thought that to enforce a curriculum would be distinctly illegal. The Acts of 1852 and 1868 required them to examine any person who should present himself, and, in his opinion, gave them no authority to enforce a curriculum.

Mr. WILLIAMS held a similar view, but he should support the motion, because he thought their solicitor would not allow them to go wrong. He had found that there was a general feeling in the country in favour of establishing a curriculum.

Mr. HAMPSON, however, moved as an amendment (which was seconded by Mr. BORLAND)—

That increased statutory powers be obtained before giving effect to the resolutions in respect of the future training of candidates for pharmacy adopted by the Council on March 7, 1883.

He asked, why this unnecessary haste? The Government assessors did not agree with the proposals—one of them, at least, distinctly did not—and no doubt the Privy Council would consult with them on the subject. Mr. Schacht did not propose to consult the solicitor as to the legality, only to get him to frame the new bye-laws. But was it wise, now that they were going to Parliament for fresh powers, thus to strain their present powers to the utmost?

Mr. GREENISH said the solicitor had previously expressed his opinion that they had not the legal power to make these bye-laws.

Mr. ATKINS and Mr. YOUNG thought it was desirable to go forward, leaving the legal responsibility with the solicitor; and Mr. BOTTLE thought if they had power to require that candidates should be of full age, and should have been employed as apprentices or students for three years, they had equally power to require that they should pass through a curriculum.

Mr. SCHACHT replied, and on vote Mr. Hampson's amendment was lost by 13 to 4, the votes being as follows:—

For: Borland, Churchill, Greenish, Hampson.

Against: Atkins, Bottle, Butt, Carteighe, Gostling, Hills, Radley, Robbins, Savage, Schacht, Squire, Symes, Woolley.

Mr. Williams did not vote.

The motion was then put and carried.

The following gentlemen were appointed the committee:—The President and Vice-President, with Messrs. Bottle, Butt, Hills, Schacht, Symes, Woolley, and Young.

Mr. Hampson was nominated, but declined to serve.

THE LATE MR. ATHERTON.

The PRESIDENT referred to the death of Mr. Atherton, formerly a member of Council, at that time residing at Nottingham, which occurred at Tunbridge Wells on September 13. It was resolved that a letter of sympathy should be sent to the widow.

THE PHARMACY ACTS AMENDMENT BILL.

A letter was read from the Secretary of the Chemists and Druggists' Trade Association, soliciting that an opportunity should be afforded to the Committee of that body of conferring with the Council of the Society on the subject of the proposed Pharmacy Acts Amendment Bill. The President and Secretary were instructed to arrange a convenient time for such a meeting.

Pharmaceutical Society of Ireland.

ANNUAL MEETING.

THE annual general meeting of this Society was held on October 1, at the new rooms of the Society, 11 Fecourt Street, Dublin. There were only three members present besides the members of Council.

The chair was taken by the outgoing PRESIDENT, Professor TICHBORNE.

The PRESIDENT briefly addressed the meeting. He said the Society had now completed its twelfth year of existence, and he thought he might say that during that period it had been fairly prosperous. They all recollected the great impulse the interests of the Society received in the first instance from its being taken up by the late Sir Dominic Corrigan; they should never forget all they owed to his name and position and the great interest he took in the Society. During the time he (Dr. Tichborne) had been in office—and he might be allowed to refer to it, as it was his last appearance before them as President—he had endeavoured, as far as he could, to keep up to the high position in which Sir Dominic Corrigan had left the Society. On his motion a resolution had been carried requiring that the Society should elect a new President every three years, the object being to see an infusion of new blood into the office, and to prevent the operation of those feelings of delicacy which might otherwise restrain gentlemen from changing their President. A triennial period had been decided on, but it might be found desirable hereafter to have an annual election. At present, however, he did not think the Society was large enough to warrant them in having a new President every year. As he had already said, he thought they were entitled to consider that the Society was fairly prosperous. It was true that only fourteen pharmaceutical chemists had passed their final examination during the last twelve months, but during that period thirty-seven had passed their preliminary examination, which, added to the previous number, made 12 in all. Besides, they accepted the preliminary examinations of other licensing bodies. The Society consisted of 116, between sixty and seventy members—he wished they had more—and they had enrolled over 200 licentiates, so that there was no doubt that the body of pharmaceutical chemists after a little time would become a power in the land. Prosecutions had been carried on and were going on at the present moment, and he was glad to say that they were in a more wholesome condition as regarded these matters than before, for they had now a guarantee fund to defray the expense of prosecutions, which was a proof that the Society intended to maintain its position and to prevent illegal compounding in the country. The intention of their Act of Parliament was that they should be at no expense for prosecutions, and should even clear a couple of pounds on each; but in the petical working of the matter it turned out that each prosecution cost them from 25*l.* to 30*l.* There had been considerable talk of late about the status of the pharmacien, and he maintained that he was more than a mere tradesman, and, in fact, a professional man. He thought they would all agree to that. But unless the pharmaceutical chemists moved to the public that he was a better man than the co-operative store man he would not be able to compete with the latter.

FINANCIAL REPORT.

Mr. HODGSON, treasurer of the Society, said he was sorry they had not a larger attendance on that occasion; and he particularly regretted the absence of the Vice-President. The balance in the Bank of Ireland was 62*l.* 0*s.* 4*d.*, as compared with 17*l.* 15*s.* 11*d.* last year. The income from examinations had been 212*l.* 2*s.*, as against 190*l.* last year. The subscriptions from members last year amounted to 68*l.* 5*s.* for sixty-five members; in the year just closed they had only received 53*l.* 11*s.* from fifty-one members. Other items brought their income for the past year up to 290*l.* 14*s.* 4*d.* The expenditure included 50*l.* 8*s.* the examiners; 13*l.* 13*s.* for the reporting of these members; fees to Mr. Purcell, Q.C., for an opinion, 2*l.* 2*s.*; minor expenses of law committee, 17*s.* 10*d.*; salary to Mr. F. cell, 52*l.*; remuneration to porter, 9*l.*; rent up to May 1894, 10*l.*; and printing and stationery, 16*l.* 14*s.* 6*d.* There was also

the item of 34*l.* 14*s.* 4*d.* for the *Pharmaceutical Journal*. The total expenditure had been 228*l.* 13*s.* 6*d.*, which left a balance of 62*l.* 0*s.* 10*d.* The accounts had been vouched by Mr. Collins and Mr. Hayes. He (Mr. Hodgson) had to thank the Society for entrusting the duties of Treasurer to him. He was sorry that their funds were not larger, and he was convinced that the greatest economy would be required for considerable period in order to keep their accounts in a satisfactory state.

After an inquiry from Mr. GRINDLEY, it appeared that an amount of some 20*l.* or 30*l.* was due for printing, and there will be a considerable sum to pay for furnishing the rooms, which Mr. Hodgson said would be paid out of capital.

Mr. WELLS remarked that the Society were not much more than solvent.

ELECTION OF COUNCIL.

The scrutineers reported that forty-nine voting-papers had been received, and that the following gentlemen were elected to the vacancies on the Council:—Dr. Tichborne, 40 votes; Mr. Allen, 45; Mr. Grindley, 44; Mr. Hayes, 40; Mr. Doran, 38; Mr. Evans, L.A.H., 37; and Mr. Draper, 35.

ELECTION OF OFFICERS.

The PRESIDENT moved that Mr. J. E. Brunker, M.A., be elected President of the Society for the next three years. That gentleman's merits were so well known, that it was unnecessary to dilate on them. As a pharmacist was a representative man, having one of the most important establishments in the city, and he had worked indefatigably to maintain the interests of the Society.

Sir GEORGE OWENS seconded the motion, which was unanimously agreed to.

Mr. BRUNKER, having taken the chair, thanked the Society for the distinguished honour they had conferred on him. The old maxim *ex nihilo nihil fit* was quite applicable to the present position of the Society; it could not be worked about the sinews of war; and he trusted that an increased number of licentiates would become subscribing members.

Dr. MONTGOMERY moved a vote of thanks to the Society's President, Dr. Tichborne, for the very laborious and extremely courteous manner in which he had attended to the duties of the office since the death of Sir Dominic Corrigan. Mr. HODGSON seconded the motion, which was supported by the PRESIDENT, and carried.

Dr. TICHBORNE briefly thanked the Society for the vote which had been passed, and for the complimentary remarks which had been made in reference to him.

Mr. GRINDLEY moved, and Mr. WELLS seconded, the election of Mr. J. C. Payne, of Belfast, as Vice-President.

Mr. HAYES moved that Mr. H. N. Draper, F.C.S., be elected Vice-President. He did not question for a moment the high qualifications of Mr. Payne, but he was convinced that it was essential for the interests of the Society that their Vice-President should be resident in Dublin, and always at hand to give the President any assistance that he required. Mr. Draper was one of the examiners of the Society, and from the beginning had taken the greatest interest in it.

Mr. SIMPSON seconded the motion, and general concurrence being expressed in regard to the necessity for the Vice-President being resident in Dublin,

Mr. GRINDLEY said he thought he would be doing what would be most in accordance with the feelings of Mr. Payne by withdrawing that gentleman's name.

Mr. Draper was then elected Vice-President.

Mr. Hodgson was re-elected Treasurer.

Mr. Hugh Fennell was re-appointed Registrar.

Messrs. Allen and Hayes were re-elected Auditors, and several committees were organised.

Dr. TICHBORNE moved the continued supply of the *Pharmaceutical Journal* to the members, and Mr. GRINDLEY seconded the proposal. This was opposed by Mr. Hodgson, Mr. Montgomery, and the President, but it was ultimately agreed to continue the supply for six months.

COUNCIL MEETING.

The monthly meeting of the Council of the Society was held on October 3, Mr. Brunker, President, in the chair. The business consisted only of the consideration of a few personal matters brought before the Council by correspondence, and was not of general interest.

The British Association.

THE session of the British Association, held at Southport last month, certainly maintained the popularity of this display of the forces of British science, and was generally allowed to have sustained in scientific weight the dignity of the various philosophies represented, which, in contact with the frivolities of fashion and the enjoyments of social life, is in no small danger.

The address of the President was certainly not calculated to encourage any tendency to the vulgarisation of science. Professor Cayley, the Sadlerian Professor at Cambridge, is one of the most eminent of living mathematicians. He won the senior wranglership in 1842, and has ever since devoted himself with calm patience, but with enormous activity, to the studies which attracted him in his youth. After holding a Fellowship in his University for some years, he found it necessary, as that source of income was only temporary, to seek some profession, for mathematics can hardly be said to be a financially hopeful pursuit. Soon after taking his M.A. degree he became a pupil to an eminent London conveyancer, and his great talents ensured him as much success in that occupation as he cared for. But when the opportunity of returning to Cambridge offered itself, with the prospect of devoting his life to his studies, he readily sacrificed law and prospective wealth for his mental satisfaction, indicating his views and his practice by the remark that the object of law was to say a thing in the greatest number of words, and of mathematics to say it in the fewest.

Those who listened to him at Southport may have fairly regretted that the legal tendency so described had not had a little more influence over him. With an evident appreciation of the fact that his science had not the same attraction for amateurs as chemistry, biology, astronomy, or geography, he disdained to make any attempt to speak down to the level of the nineteen-twentieths of his audience who could have followed him fairly well if he had cared to link his ideas together by slight explanations, but who, dropping the thread of his argument from time to time, found his disquisition, as Sir Walter Scott's friend said of the dictionary, very learned, but somewhat disconnected. The first section, in which he combated John Stuart Mill's theory that the truths of geometry can only be appreciated by experience, was fairly clear. Mill says he does not believe anyone can conceive of a mathematical line, that is, a line without breadth. He supposes it to be only assumed because it is thought that without such a conception mathematics would not be possible. Cayley replies, all depends on the meaning we attach to the word "conceive." He would say that the imaginary line is the real one, and that that which we see is the shadow of it. If we cannot conceive the line, how can we deny its existence? But the discussion became harder as the President proceeded. The speculations as to one, two, three, or four dimensional space, which are just comprehensible to the non-trained mind when read, were lost in bearing because the speaker did not take the trouble sufficiently to define the technical terms. From this on to "the imaginary variable $x + iy$ " the address soared to positions to which the ordinarily-educated person is not, as a rule, accustomed, and to most of the audience became unintelligible. Nevertheless we are bound to believe that all these speculations touch the earth somewhere; such is the everlasting moral drawn at all British Association meetings; but it must be admitted that Professor Cayley has not the peculiar talent which can present abstract science in an attractive concrete form.

Dr. J. H. GLADSTONE, as President of the Chemical Section, sketched the present condition of the theories as to elements. He described the old Chinese theory that there were five elements—water, fire, wood, metal, and earth. This chemistry in China is certainly as old as the time of Solomon. The Greek notion of the four elements Dr. Gladstone believes to be still retained, even among many scholars who take degrees. Coming then to the interesting question as to the possible resolution of the elements, as we now know them, into fewer bodies, Dr. Gladstone succinctly reviewed the evidence offered by (1) the spectroscope, (2) the periodic atomicity of certain groups of elements, and (3) specific refraction.

Spectroscopic observations had not yet thrown much light on the subject. The spectra of iodine and bromine, for instance, were not that of chlorine, *plus* certain other rays; nor does multiplicity of rays indicate necessarily complexity of constitution; it may merely indicate a more complex arrangement of the atoms. Mr. Lockyer's experiments with the solar spectra show that sometimes certain spectra, as of iron for instance, disappear altogether; and his theory is quite reasonable, that the iron may be dissociated in the heat. But it may also be that the spectra are changed, as is known to be the case sometimes, by the varying temperature.

The remarkable groups of elements with properties similar, but varying with their atomic weight, suggest polymeric formations; but Dr. Gladstone pointed out that the specific refraction of the elements, as far as it has been determined, does not show that regular increase with the atomic weight as is the case in regard to known compound bodies. The general tendency of the argument was to show that the elementary radicals are essentially different from the compound radicals, though their chemical functions are similar.

There does not appear to be any argument which is fatal to the idea that two or more of our supposed elements may differ from one another rather in form than in substance, or even that the whole seventy are only modifications of a prime element; but chemical analogies seem wanting. The closest analogy would be if we could prepare two allotropic conditions of some body, such as phosphorus or cyanogen, which should carry their allotropism into all their respective compounds, no compound of the one form being capable of change into a compound of the other. Our present knowledge of allotropism, and of variations in atomicity, affords little, if any, promise of this.

The remarkable relations between the atomic weights of the elements, and many peculiarities of their grouping, force upon us the conviction that they are not separate bodies created without reference to one another, but that they have been fashioned or built up from one another, according to some general plan. This plan we may hope gradually to understand better, but if we are ever to transform one of these supposed elements into another, or to split up one of them into two or three dissimilar forms of matter, it will probably be by the application of some method of analysis hitherto unknown.

In the rest of his address Dr. Gladstone referred to the radiant matter spectroscopy described by Mr. Crookes, whereby the fluorescence of certain bodies exposed to electric discharge in a vacuum is tested; to the brighter prospects for the teaching of chemical subjects introduced by the Mundella Code, and to the establishment of the Society of Chemical Industry.

Professor HENRICI, who presided over the Mathematical Section, made a vigorous attack on the present teaching of geometry in England, condemning Euclid as a text-book, while expressing his admiration for it as a treatise, and holding up modern French and German methods of teaching as being preferable to ours.

Professor W. C. WILLIAMSON, the President of the Geological Section, in his address sketched the present state of our knowledge of the vegetation of the carboniferous age, the controversies produced by certain discoveries, and the advance of scientific opinion respecting them, expressing and vindicating his own opinions on many disputed points; and he referred to the bearing of the whole subject upon the doctrine of evolution, which was supported by the wide distribution of carboniferous plants and the few spots at which they were found displaying any internal structure.

Mr. W. PENGELLY, in presiding over the Anthropological Section, took a retrospect of the researches of Messrs. McNery, Godwin-Austen, himself, and others in regard to the human remains and flint implements in Kent's and Brixham Caverns, near Torquay. With a good deal of relish Mr. Pengelly fought over again the battles of a quarter of a century ago, and gave his reasons for believing that man existed in Britain before the hyena arrived here. He concluded with a few instances of how correspondents had from time to time sent him what they regarded as fossilised skulls, which were nothing more than curiously-shaped stones.

Professor RAY LANKESTER provided the first sensation of the meeting in his address to the biologists, in which he

made an almost passionate appeal for public funds for the endowment of biological laboratories. After reciting some of the beneficent results of the labours of biological investigators, such as the studies which have resulted in the antiseptic treatment of wounds, Pasteur's discoveries, &c., the speaker said that England must not be content because she could claim a few great names, such as Harvey, Huxley, Darwin, and Lister; the question was, could she do more than she did? At present only persons of independent fortune, or persons specially endowed, could pursue his branch of study. It is in German laboratories that the work of the science is now being conducted. The German endowments of professors of biological sciences were estimated at 80,000*l.* per annum. Besides these there are special institutions also endowed. France possessed the State-endowed Collège de France, Sorbonne, Ecole de Médecine, École Normale, and Jardin des Plantes. Comparing with these the provision in England at universities, museums, Kew Gardens, &c., there might be reckoned in all about thirty-eight persons salaried by the State, against some 300 in Germany. It was argued that the new knowledge produced by biological researches could not pay, itself; that if the investigator were also a teacher his time was too much taken up; that if he wrote books on his studies there was not sufficient demand for them to make them profitable, except in the exceptional instances, such as that of Mr. Darwin. Professor Lankester has his plans all ready. To be approximately level with Germany, he wants in England alone forty biological laboratories, in addition to the fifteen which may be reckoned as already existing. These would cost to start, he reckons, about 160,000*l.*; then some 60,000*l.* would be required annually for the maintenance. There was property left by Sir Thomas Gresham 250 years ago, now estimated to be worth about three millions, expressly for scientific research. This property has been deliberately appropriated to other purposes by the City and the Mears Company with the consent of Parliament. That the action of Parliament in this respect may be repealed is not unlikely as a result of the present Commission. With extraordinarily bad taste and bad judgment Professor Lankester wound up his argument by pressing for this State endowment on the ground that scientific study was what we had to look to replace "the old-fashioned stimulus to a higher life." To make his claim the recognition by the nation of practical atheism was a most unnecessary tag to an otherwise able address, and will ensure its rejection for many a long year.

Colonel GODWIN-AUSTEN, who presided over the Geographical Section, gave for his address a careful account of the physical aspects of the Himalayas; Mr. Inglis Palgrave's address to the section of Economic Science was a mild piece of politics, but except that it urged that the science did not solely consist in the discovery of the means of producing wealth, but had for its object also the promotion of the comfort of all classes, did not contain any very definite instruction; and the address of Mr. Brunlees to the Mechanical Science Section related chiefly to the progress that had been made in railway construction. He regarded the application of electricity as a motive-power as one of the possibilities of the future.

Of the papers read it will not be possible to speak in any detail at this time. Those which attracted most attention were Mr. Trelawny Saunders' advocacy of the Jordan Cal, which was generally pook-pooked; Mr. Park Harrison's description of the so-called "missing-link" Krao, whom he found to be only an ordinary Siamese child with an abnormal development of hair; and above all, and most deservedly, Mr. H. H. Johnston's account of his experiences on the Congo with Mr. H. M. Stanley, followed by the reading of a letter from Mr. Stanley himself. The chemical papers were mostly highly scientific, and it would not be possible to give a *résumé* of them of any use or interest except at great length.

On the Sunday it happened that two bishops (Carleton and Derry) were both preaching at the same time from the same text, "What think ye of Christ?"; while at another church the Rev. S. Haughton, M.D., F.R.S., of Dublin, took the opportunity of firing a broadside into the evolution theory, founding his remarks on the text, "If the blind lead the blind," &c. He said Nature could be explained only by one or other of two methods. One involved design at the designer, which some accepted only as a "working hypothesis."

thesis." The other was gradual formation out of crude mass by chance. Elaborating these views in an imaginary conversation between two friends, he said the latter view meant Nature playing pitch and toss with herself. He cited Gulliver's philosophers arranging words by chance, and said that by that method it would take them longer than man had been on the earth to indite five lines equal to those in the Odyssey describing the neglected condition of a dog during its master's absence, and its death from joy on the master's return. A cockroach or a butterfly was infinitely more complex than Homer's works, and the question arose whether Nature had had time enough to manufacture all these beautiful things by chance. The mathematical section would not accept a paper on perpetual motion, which was not possible, because all material things contained in themselves the seeds of their own destruction. The clock of the universe was running down, and must at length cease to strike. A machine that was running down must at one time have been wound up by something outside itself which was not either matter or its laws. Stating the case between the old doctrine and the new, he came to the conclusion, as a matter of pure logic and reasoning, without any reference to revelation, that the new doctrine required more credulity than the old one.

The next meeting of the Association is to be held at Montreal, commencing on August 27, 1884, the elected President being Lord Rayleigh. For 1885 Aberdeen was chosen. The total number of tickets sold for the Southport meeting was 2,714, making it one of the most successful meetings the Association has held.

THE SCHOOL OF PHARMACY, BLOOMSBURY SQUARE.

ON the evening of October 3 the theatre of the Pharmaceutical Society was crowded to witness the distribution of prizes to the successful students of the School of Pharmacy, to listen to the address of Professor MICHAEL FOSTER inaugurating the new session, and to do honour to the second recipient of the Hanbury Medal, Mr. John Eliot Howard. The President, Mr. Michael Carteighe, took the chair at half-past eight o'clock.

Professors Redwood, Bentley, and Attfield, who were all warmly applauded, briefly reported on their respective classes during the past session, and stated the results of their examinations. The awards were as follows:—

CHEMISTRY AND PHARMACY. (Professor Redwood's Class.)

Five Months' Course. FIRST COURSE.

Bronze Medal.—David Rees.

Certificates of Merit.—Edward Baily, Charles Ranken, Sidney Phillips, Francis Ransom, Thomas Southall Dymond, William Edward Crow, James Adcock, David Low, Edward Ernest Sewell, Arthur Pumphrey.

SECOND COURSE.

Bronze Medal.—Lewis Walter Hawkins.

Certificates of Merit.—John Chinery Wiggins, Ernest James Reynolds, John Kodman Mowatt.

Session. Ten Months.

Silver Medal.—David Rees.

Certificates of Honour.—Francis Ransom, Edward Baily, David Low.

Certificates of Merit.—Charles Ranken, William Edward Crow, Thomas Southall Dymond.

ANATOMY AND MATERIA MEDICA. (Prof. Bentley's Class.)

Five Months' Course. FIRST COURSE.

Bronze Medal.—William Edward Crow.

Certificates of Merit.—Edward Baily, David Low, William Lloyd Williams, Sidney Phillips.

SECOND COURSE.

Bronze Medal.—John Chinery Wiggins.

Certificate of Merit.—Ernest James Reynolds.

Session. Ten Months.

Silver Medal.—Edward Baily.

Certificates of Honour.—Francis Ransom, William Edward Crow, William Lloyd Williams, Charles Ranken and David Low (equal), Edward Ernest Sewell.

Certificates of Merit.—Thomas Southall Dymond, Arthur Pumphrey, John Chinery Wiggins.

PRACTICAL CHEMISTRY. (Professor Attfield's Classes.)

Session. Ten Months.

Silver Medal.—William Edward Crow.

Bronze Medals.—Thomas Southall Dymond, David Rees.

Certificates of Honour.—Charles Ranken, John Chinery Wiggins, William Lloyd Williams, Bernard Keene.

Certificates of Merit.—Edward Baily, Francis Ransom, David Low, Edward Marsh, James Burden Barnes.

HERBARIUM PRIZE.

(Reported on by Professor Bentley.)

Bronze Medal.—Thomas Stephenson.

Certificate of Merit.—Frederick Miller.

COUNCIL'S PRIZES.

Messrs. William Southall and Sidney Plowman had conducted the examinations for these. Mr. Plowman submitted the report. He said they had concluded that though the two gentlemen to whom awards had been made had displayed great merit it was not quite so much as to entitle either to the Pereira medal. The prizes awarded were:—

Pharmaceutical Society's Medal (Silver). and Books value 3l., presented by Mr. T. H. Hills.—William Lloyd Williams.

Pharmaceutical Society's Medal (Bronze). and Books value 2l., presented by Mr. T. H. Hills.—Edward Baily.

THE JACOB BELL MEMORIAL SCHOLARSHIPS.

(Examination conducted by Messrs. G. S. Taylor and C. Ekin.)

Mr. Taylor reported that there had been twenty-five candidates, and that the scholarships had been won by—

Messrs. Fraser McDiarmid and Robert Wynn Charles Pierce.

The INAUGURAL ADDRESS was delivered by Professor Michael Foster, who (speaking extempore) said he was not altogether an outsider as regards pharmacy, for in times past he had rolled pills, folded powders, and written in a legible, if not in a bold, hand the directions how they were to be taken. Besides that, he had the honour to be an honorary member of the Society. Having agreed to deliver this address, and knowing there would be a distribution of prizes, his mind had run on examinations. As he understood, examinations were used for two purposes. First, to take the result of those examinations as a stamp, or a certificate. But a certificate of what? He had some little right to speak on this subject, because as a young man, although examinations were not so "rife" in those days as now, he was a good deal examined. Indeed, he looked back to certain years of his life as being a kind of hurdle race in examinations. He had no sooner cleared one examination than there was another ahead of him. Then instead of being an examinee he became an examiner, so that he might speak on this point, and yet he felt compelled to say that the real thing of which the result of the examinations is the stamp and the certificate is ability and skill in passing an examination.

Nevertheless, we may use the examination safely in an indirect way. The stupid man and the idle man will never acquire skill and ability in passing an examination; the industrious and the clever will easily show skill in passing an examination; and we may use an examination indirectly very safely as a pass examination to separate the industrious and the clever from the idle and the stupid. But we may even then make mistakes, and those mistakes become much more probable when we use the examination as a means of sorting out people from each other; when we pass from the pass examination to the competitive examination. We have no doubt that A. is cleverer in passing an examination than B., and in all probability A. will in future life be a better man, and prove a more real man than B. But that is not always the case; the examinations often fail us in that respect. Often good examination men did not prove of great value in after life; again and again men who have not done well in the examination-room have been of enormous value in after years. And then modern refinements have increased our difficulties.

Whenever an examination is instituted in order to select the fit persons for this or that, there always arise a certain number of people who undertake to put a lad through that examination whether he be fit or not. We have an idea that the prize in an examination is given because in the race the lad arrives at the goal by the exercise of his own limbs, and that his speedy arrival at the goal is a test of the soundness of his mind and the strength of his limbs. But a "coach" takes him on his back, and lands him there; it is at his expense he is carried there, and his arrival there is a token not so much of the lad's ability, as of the "coach's" skill. There are some "coaches" who gain their end by rea-

teaching; but they have deserted their clan: they are no longer "coaches," but teachers. But all are not so, and coaching has nowadays achieved the position of a fine art. The "coach" when he takes to coaching pupils does not consider in the first place the nature of the study, but what he is pleased to call "the examiner's mind." He makes a study first of all the examiners. He knows their whims; he knows their fancies; he learns what answers will, if he might say so in the presence of others who were like himself examiners, tickle them most, and he directs his efforts accordingly. Indeed, some of these "coaches" who have a large number of pupils take on them the functions of a general. They marshal their forces, and one examination where the *résumé* is of some importance, a "coach" has been in the habit of sending his weak, hopeless pupils in first to know what the style of the questions was in order that the hopeful pupils might benefit by the knowledge. This is a very serious and important additional difficulty, in taking the results of an examination as really a stamp of the merit of the candidates who have passed the examination.

But after all the lad who goes in for an examination in any subject must in some way or another learn something of the subject. The examination compels knowledge, and there are many of us who know that but for an examination into which perhaps we entered for some partly vainglorious purpose, for the mere reason of getting a certificate or winning a medal, we might never have got an introduction to a science or a knowledge which soon fascinated us, and to which we have become attached ever since.

He believed that the evils of examinations might be diminished, and the good increased, by simply multiplying them. He thought the evil of examinations lay a great deal in their formal character: in their being frequently one supreme effort which is made and is left. He regarded that examination as the worst where a lad, after two or three years' study on a variety of subjects, is examined in all of them in the shortest space of time. For instance, in a certain university, the subjects are so many that, as a poor, disappointed, despairing student said, preparing for this examination was like driving a lot of pigs. You have no sooner got hold of one subject than the others are all abroad. The best examination was that kind carried out in a partial manner in the School of Science at South Kensington, and which, if fully developed, takes on somewhat of this form, that a lad having to study two, three, or four subjects does not attempt to drive them, so to speak, all abreast, but takes one, or at most two, and devotes his whole attention to that one or at most two. Then as he attends the lecture, and especially as he carries out the practical work belonging to the lecture, a note is now and again taken by the teacher of the progress which he makes, and any doubt which the teacher may have is remedied by frequent informal examinations. At the end of the course there is a formal examination undertaken by the teacher, or by the teacher with the help of an assessor, in order that things may be straight and above-board. But, it might be said this would assume the form of compulsory lectures. He considered, however, that these would not be compulsory lectures; but such a course would involve compulsory study, and that compulsion is necessary for the good of the individual as well as the good of the public, of which he is a part. He was opposed to compulsion, but he did not think such compulsion unjust, nor that legislation meddlesome or unnecessarily restrictive which gives the public security concerning the sale of things which are becoming in their nature alarmingly dangerous, and more and more alarmingly dangerous every day. If security is to be offered, that security should be a real one and not a fantastic one; and that security is not to be found in a rapid examination, however conscientiously conducted, but such a security must be found in some such course of study as he had ventured to sketch out.

But this was somewhat dangerous ground. A young gentleman has of recent years acquired some notoriety by his somewhat crude handling of an old topic, "Is life worth living?" And it may occur to many to put the question: "Is the pharmacist's life so much worth having that you are ready to undergo all these examinations, and to sink the money involved in them?" He could imagine people saying, "We have spent so much money and so much time in acquiring the right to sell strychnia with our sovereign's approval. We wait for customers, but they do not come,

and in the end we find a faithless public buying it clandestinely and cheaply round the corner." This is a grave, and anxious matter, and one on which an outsider perhaps ought not to say much. But it is a difficulty not confined to pharmacists; doctors have the same complaint. They say that if the stringency of medical examinations is to be increased in the future as it has been in the past, the young gentlemen who have thus been made to sound all the depths of biological knowledge, and to equip themselves with the whole panoply of the healing art, will never stoop to the drudgery of village practice, and that our country poor will be left to the mercies of unlicensed quacks. The same may come also from other departments of life. Everywhere we hear that this science, which has turned the world upside down, has come hither also. But is it not because science is becoming an increasingly potent factor in the struggle for human life, and is making the struggle a closer and a bitter one? The work of science is to enable the skilled few to do the work which is done, or which used to be done, by the unskilled many. It lengthens the arm of each man, but within an area it diminishes the number of those whom he live within that area. It is tightening up the whole web. Everywhere science is making itself felt, and in many aspects, maybe, the whole of life is becoming one brilliant examination in science, and, moreover, the standard is raised year by year.

Now it is no good striving against the inevitable. As the story of human life unfolds, each passing stage has its charms, has its good and its ill; but you cannot hope to keep the good and let go the ill of each passing plea. There was a certain pleasure in the old savage life. It was very good to pitch one's tent where one liked without the dread of leases, of contracts, and builders' bills; but then there was hunger and thirst, and there was bloodshed even hand. And perhaps many doctors think it must have been pleasant in the old times when anyone who liked, without reference to the central body, could set himself up to cure or to kill by of his neighbours who pleased to entrust their bodies to him. But he thought the doctors would be very loth, with all the charms of the past, to go back eighty years, and pharmacists too, would be unwilling to wipe out the Pharmaceutical Society, and all it means, and to go back fifty years. But if you do not go back, neither can you stand still. Many of you, looking back forty years, might think it was a purely voluntary act, the undertaking to institute the Pharmaceutical Society and all it meant. But, in reality, your ancestors were carried on by the spirit of reviving things, and that same spirit must carry you on to do still further things, and it is far better for you to put yourselves in harmony with the necessary course of events—much better to put your shoulder to than against the wheel of fate.

He did not from a pecuniary point of view fear that either doctors or pharmacists would become so superlatively educated that the country districts would be left without men to prescribe or men to dispense. The struggle for existence is getting far too sharp to leave any place of that kind vacant for any length of time.

All ranks are feeling the same pressure; everywhere the same place is being occupied by a better man. Moreover, there is one other consolation, viz., that which you accuse of breeding this discontent goes far to take it away, for it is one of the happy features of the work of science in human life that while it is making closer and more bitter the struggle, sharpening the fight between man and man, it is at the same time opening out new capacities for enjoyment. You look back to the man who without any trouble could set up his shop where he pleased without any previous education, without any previous training; but you must remember that the life of such a man was in the vast majority of cases limited to his dinner and the tittle-tattle of the village. He felt sure that every one who had passed through those portals felt that there are new pleasures of life opened up, and that though pounds, shillings, and pence are and must always be the framework of happiness, still that the pleasures of an instructed mind are the best and most lasting habiliments of that framework. That is an element which you must fairly consider when you come to ask the question whether, in the face of so many examinations, so much increasing study, and so much diminished return, a pharmacist's life is worth having.

THE British Pharmaceutical Conference.

TWENTY-FIRST ANNUAL MEETING, SOUTHPORT, 1883.

THE sessions of the British Pharmaceutical Conference were commenced in a large room at the Prince of Wales's Hotel, Lord Street, Southport, on Tuesday, Sept. 18, 10.30 A.M. There was a large attendance of members and visitors, with a sprinkling of ladies, and the room was crowded for the Presidential Address.

After a little delay, Professor Attfield took the chair, and Mr. W. V. RADLEY, Southport, Chairman of the Local Committee, delivered a short address of welcome. He said it felt it was a great pleasure and honour, on behalf of the chemists of Southport and district, to give all present a hearty welcome. The supreme wish of the committee was that it should be a happy gathering, and successful in all respects. Their anticipations were pleasant on account of the stimulus, interest, and instruction to be derived from the valuable papers which would be read, and most especially account of the opportunity afforded them of making the personal acquaintance and friendship of gentlemen of light and leading, whose labours were well known and appreciated. Particularly were they gratified at having Dr. Attfield at their head. He was honoured and respected, and his works were appreciated not only in Great Britain and Ireland, but also on the Continent and in America. Southport was but a strippling among towns, but it was not deficient in strength, and was not indisposed to show its vitality in a little warfare. They were not able to offer their guests rich treasures of art. Theirs was a young town. Ninety years ago not a house was to be seen, and now it was essentially a residential town and health-resort. The chemists of St. Helens had due to their help, and the members of the Conference would be invited to visit various large manufactories there. Naturalists would find something to interest them in the hills surrounding the town. The Glaciarium, swimming-baths, and summer and winter gardens would help to entertain their guests. He hoped all would return home with pleasant recollections of their visit.

Professor ATTFIELD, in the name of the visitors, thanked Mr. Radley and the local committee for their cordial welcome. They were fortunate to visit so thriving and vigorous a town, which attracted the pleasure-seekers from a population of four millions within a radius of forty miles. He thanked them for the cordial pharmaceutical enthusiasm with which from the first the local chemists had worked, and he stated that they would find their reward in the frankness and fulness with which their hospitality would be accepted. Several letters from members, expressing regret at their unavoidable absence, and the list of delegates, were read by the secretary, Mr. F. Baden Bengier.

Mr. Sydney P.owman (secretary) then read the

REPORT OF THE EXECUTIVE COMMITTEE.

The report stated that the selection of the place of meeting for 1883 had been left in the hands of the Executive Committee. Invitations to Oxford and Southport were submitted to it at a meeting held in October last, and the decision of the British Association led to the acceptance of Southport. At this meeting the question of local arrangements was raised, and the following resolution was passed:—

That it be a general instruction to the local committees of towns in which the Annual Conference is to be held, that their arrangements, both in respect to the business of the Conference and the entertainment of its members, be approved by the Executive before publication, and that the attention of local committees should be called to the report of the Executive at the Sheffield meeting, in so far as it relates to questions of entertainment.

The "blue list" of subjects for investigation had been revised, and a circular inviting them to membership had been sent to all the registered chemists and druggists in Great Britain, and pharmaceutical chemists in Ireland who were not already members. Nearly 350 applications for membership had been already received in response to this, but the expenses (92*l.* 11*s.* 7*d.*) and the subscriptions were not included in the financial statement presented at this meeting, as the transactions took place after the close of the financial year on June 30.

The question of appointing colonial secretaries has been considered, and the general secretaries have obtained the names of suitable gentlemen in the colonies and India willing to undertake the duties. The following have been communicated with:—Mr. H. S. Evans, F.C.S., Montreal, for Canada; Mr. W. C. Ross, Trinidad, for the West Indies; Mr. A. Walsh, Port Elizabeth, for the Cape and Natal; Mr. D. S. Kemp, Bombay, for India; Mr. E. Taylor, Brisbane, for Queensland; Mr. H. Shillinglaw, Melbourne, for Victoria; Mr. L. B. Bush, Bathurst, for New South Wales; Mr. A. P. Miller, Hobart, for Tasmania; Mr. T. M. Wilkinson, Dunedin, for New Zealand. Sufficient time has not elapsed for replies to be yet quite complete, but so far as they have at present been received they are most favourable. Mr. Kemp advises the appointment of a secretary in each Presidency instead of one only for the whole of India, and consents to act for Bombay if appointed; but Mr. Evans, in consenting to act for Canada, thinks one secretary sufficient for the whole of the Dominion.

Three money grants for the purchase of material on which to conduct researches have been made. They are as follow: 5*l.* to Messrs. Dunstan & Short, to investigate the pharmaceutical preparations of nux-vomica, principally in regard to their alkaloidal value; 5*l.* to Messrs. Dunstan & Ransom, to further extend the method of alkaloidal extraction with the chloroform-alcohol mixture, to be followed by a further grant of 5*l.* if required; 2*l.* 2*s.* to Mr. W. Elhorne, to determine the comparative pharmaceutical value of commercial rhubarb.

Reports will be presented at this meeting from Messrs. Greenish, Jackson, and Messrs. Dunstan and Short.

Twenty-three papers and reports have been received for the present meeting, but one was of a purely medical character, and was returned to the author as being unsuited for the object of the Conference.

The Bell and Hills Fund, founded by the munificence of Mr. Thomas Hyde Hills, provides for the annual expenditure of 10*l.* for the purchase of books for presentation to the library of the Pharmaceutical Association of the city or town in which the Conference meets from time to time. As Southport has no such association some difficulty arose as to the gift of books this year. The local committee, however, arranged that, if the executive committee could make the grant, the books should form the nucleus of a library, and that the local secretary of the Pharmaceutical Society of Great Britain, for the time being, should undertake the charge of them and should guarantee their legitimate use. Under these circumstances it was decided that the books should be presented.

The manuscript of the "Year-book," prepared by Mr. Louis Siebold, was on the table.

Since the last general meeting at Southampton, 396 candidates had been elected to membership, 20 of whom reside in the colonies, 14 in Ireland, and 332 of the applications were sent by residents in Great Britain in response to the special circular issued last July.

Mr. EKIN (treasurer) then read the

FINANCIAL STATEMENT, 1882-83.

The Hon. Treasurer in Account with the British Pharmaceutical Conference.

<i>Dr.</i>		£	s.	d.
To Balance in hand .. ..	.. ..	217	8	4
„ Sale of Year-book by Publishers .. ..	.. ..	24	0	0
„ Sale of Year-book by Secretary .. ..	.. ..	18	0	0
„ Advertisements, 1880 vol. .. ..	.. ..	0	18	0
„ „ 1881 vol. .. ..	.. ..	8	3	0
„ „ 1882 vol. .. ..	.. ..	90	1	0
„ Subscriptions from Members .. ..	.. ..	658	5	3
July, 1882. To Dividend on £250 Consols .. ..	.. ..	3	13	5
Jan., 1883. „ „ .. ..	.. ..	3	12	6

1,024 1 6

<i>Cr.</i>		£	s.	d.
By Expenses connected with Year-book:—				
Printing, binding, and distributing ..	435 15 6			
Editor's Salary	150 0 0			
Advertising and Publishers' Charges ..	27 9 6			
Foreign Journals	4 5 0			
		617	10	0
„ Secretary's Salary		100	0	0
„ Printing and Stationery		7	7	6
„ Sundry Expenses		4	5	8
„ Postage		47	2	6
„ Advertising		5	0	0
„ Expenses of Southampton Meeting ..		15	14	10
„ Secretary's Expenses Southampton Meeting		5	0	0
„ Balance at Bank	221 8 1			
„ Cash in Secretary's hands	12 11			
		222	1	0

1,024 1 6

Assets, July 1st, 1883: Cash in hand	222	1	0
(Consols (stock)	250	0	0

The Bell and Hills Fund showed a balance in hand of 25*l.* 16*s.* 10*d.*; the books presented to Southampton cost 9*l.* 12*s.* 6*d.*; 350*l.* is invested in Consols.

The PRESIDENT, in moving the adoption of the report, said that it spoke for itself, and showed that the objects of the Conference had been kept steadily in view. He mentioned that a Southport Chemists and Druggists' Association already existed "potentially."

Dr. QUINLAN (Dublin) seconded the adoption of the report, which, he said, was a model of business-like clearness, and contained the promise of future success. Members were much obliged to the gentlemen who managed their business so well.

The report was unanimously adopted.

THE PRESIDENTIAL ADDRESS.

Professor ATTFIELD then read the following address:—

THE FUTURE SUPPLY OF DRUGS TO THE PUBLIC.

PART II.—THE RELATION OF THE STATE TO PHARMACY.

Once more I desire to direct attention to the important question of "The Future Supply of Drugs to the Public." The one side of that subject, namely, "The Relation of Pharmacy to the State," I treated last year in my address to the Members of the British Pharmaceutical Conference assembled at the nineteenth annual meeting, at Southampton. Again honoured with the presidency of that body, at the twentieth annual meeting, at Southport, I ask for attention to the other side, namely, "The Relation of the State to Pharmacy."

I do not now purpose considering the ideal relationship of a state to pharmacy. Nor can I within the limits of an hour's address give even an outline of the actual relationship now existing between every civilised State and the pharmacy of that State. I must confine myself at Southport, as at Southampton, to the question as to what will be the character and conditions of the supply of drugs, in the immediate future, to the individuals and households of Great Britain, so far as that character and those conditions can be predicted from the character and conditions of the present supply. What pharmacy is doing and can do for the State, in the interests of every individual in the State, I described last year; what the State is doing and can do for pharmacy, in the interests of the public, is what I now desire to consider.

* For the sub-headings the author is not responsible.

A crisis in pharmacy is fast approaching. The endeavour of the British Legislature to provide for the proper supply of trustworthy drugs to the public is being seriously thwarted. The great importance of such a supply is obvious, and in 1868 Parliament enacted that after the end of that year no person should take the title "Chemist and Druggist," and practise under it, unless, after satisfying State examiners that he was properly qualified, his name was duly enrolled on a State Register. Now, that it was possible for any person probably utterly unqualified and certainly uninterested to act towards the public as a chemist and druggist without actually calling himself or using the words "chemist and druggist," was not then foreseen. Yet that is exactly what is happening. The practice which has long existed in this country, especially in thinly-populated districts, of the general shopkeeper, usually a grocer, selling two or three common drugs, a practice itself not always harmless, as within the past five or ten years developed into the sale of nearly all drugs and medicinal compounds by shopkeepers of all descriptions in nearly all districts. Indeed, in some cases, also increasing in number every year, completely-furnished shops, indistinguishable in appearance from those of registered chemists and druggists, are opened by unregistered and unqualified men, who are mere distributors in retail of drugs bought wholesale—men without proper knowledge respecting the dangerous articles they deal in, and without any sense of the responsibility of their position. The sham chemists and druggists, and large numbers of the general shopkeepers alluded to, sell everything the properly-qualified chemist and druggist sells. The only articles which they are not supposed to sell are the few more virulent poisons scheduled in the Pharmacy Act, the sale of which, however, by the duly-qualified man do not make a difference to him in the course of a year.

FRUSTRATION OF THE AIMS OF THE PHARMACY ACT, 1868.

This condition of things is not only worse than that which the Pharmacy Act of 1868 was intended to remedy, it is much worse. For to supply such unqualified drug sellers in large numbers of so-called wholesale druggists have sprung into existence, respecting whose qualifications for the work nothing is known. So that at the present time the public are not only liable to be supplied with untrustworthy drugs because a flaw in an Act of Parliament allows unexamined and unregistered men to practise as chemists and druggists, but because the wholesale druggist supplying such retail vendors may himself be incompetent. Now, from wholesale druggists, men who do not keep open retail shops, the Legislature never has demanded evidence of qualification. For, firstly, the old type of wholesale druggist was a man of probity beyond suspicion; and, fortunately for the health of Great Britain, the old firms still exist, many a new one, doubtless, being as good. But, secondly, on the assumption that drugs and compounds are only supplied retail by persons who have given evidence of their fitness to manipulate such potent substances and to judge of their quality as they are put into the shop from the warehouses of wholesale dealers—the assumption on which, apparently, the Pharmacy Act of 1868 was framed—on this assumption any evidence of qualification of wholesale druggists is uncalled for and unnecessary. Obviously, if all the retailers were qualified, the public would be amply protected. Indeed, considering the number of persons employed in a large wholesale drug house, and the extent to which division of labour is carried in such an establishment, the supplying of evidence of qualification of all who carry on different responsible operations there is, perhaps, not practicable. So that if any remedy is to be sought for the serious state of things I am considering—assuming that it exists, and I shall show that it does—that remedy will scarcely be found in the requirement of evidence of qualification from wholesale druggists. It rather lies in an improvement of the Pharmacy Act as regards the retailers of drugs; but of this more later. The serious fact for present consideration is that whereas the law of this country, in view of the welfare of the community, in drug matters, contemplates the retail supply of drugs by properly qualified persons only, that intention is being extensively frustrated. Drugs of nearly all kinds, simple and compound, are being indiscriminately stored and

old by unqualified persons; stored with articles of food and drink, and, indeed, with nearly all articles required in domestic life; and sold by shopkeepers of nearly every class. Thus, drugs, besides being manipulated and vended by registered chemists and druggists, and sometimes by medical men who cannot in all cases earn a livelihood without turning their surgery into a shop, are stored and sold by barbers, booksellers, chandlers, confectioners, rappers, general dealers, grocers, hairdressers, herbalists, confectioners, marine-store dealers, oilmen, printers, publicans, stationers, storekeepers, tailors, tobacconists, toy-dealers, wine merchants. Many of these shopkeepers are no doubt in a very small way of business; many, however, are prominent men doing large trades, and too often sell the drugs at cost price as mere baits to catch customers for their profitable transactions. Then, as already indicated, besides these drug-sellers admittedly engaged in other trades, there are the sham chemists and druggists, the coloured show-globes in whose windows, and bottles on whose shelves mutely proclaim them chemists and druggists, but who are unregistered and unqualified.

This, I say, is an extremely serious state of things. It is, of course, an unfair and very serious condition for chemists and druggists themselves—men who have fitted themselves for their responsible calling in the manner prescribed by Act of Parliament—for they are thus, many of them, losing much of their means of living and of the means by which they maintain their wives and families. But it is far more serious for the public.

EDUCATED TRADERS THE ONLY PROTECTION FOR THE PUBLIC.

It is a serious state of things for the public for this chief reason, namely, that whereas purchasers of food are more or less protected from the purchase of bad food by their personal power of judging of the quality of food, purchasers of drugs cannot be protected from the purchase of bad drugs by any personal power of judging of the quality of drugs. *Veritas* does not apply in the case of drugs, because the purchaser has not the requisite knowledge to enable him to *discernere*. Even the aid which purchasers of food can derive from officials under the Acts relating to adulteration cannot be obtained in the case of drugs, because, amongst other reasons, nature yields drugs which vary very much in quality, and only trained chemists and druggists can properly judge of such quality. Analysts *quâ* analysts cannot be sufficiently familiar with the varying natural standards of quality of all the many medicinal articles comprehended under the term *materia medica*—if, indeed, there are any standards—to throw their official shield in front of the public. From the evils of bad drugs the public cannot protect themselves; they cannot be protected by the machinery of the Food and Drugs Act; they have no control over either the importer of foreign drugs, the grower of indigenous drugs, or the wholesale dealer in or manipulator of drugs; regards the retail dealer, the machinery for their protection in the Pharmacy Act is incomplete: therefore it is evident that the machinery for their protection in the Pharmacy Act be rendered complete and effective.

NECESSARY LIMITS OF FREE TRADE IN PHARMACY.

Here let me endeavour to allay any alarm which the use of the word "protection" may excite in the minds of free traders. And I say, first, that where the health of the public is at stake, and where the public cannot protect themselves, exception to the rule of free trade may be and is allowed. Already the State does not permit free trade in some poisonous drugs. Therefore an exception to the rule of free trade is already allowed in pharmacy, hence this part of the question need not be discussed. It is only necessary to consider where the limit of exception should be fixed. The line now drawn by the State between some poisons and others, the contention will be, that the line should encircle all poisons. Nearly all drugs are poisons, more or less. Therefore, nearly all drugs should be excluded from the area of free trade. But I say, secondly, that the doctrines of free trade do not apply to pharmacy. There cannot well be true freedom of trade where the power of judging of the article is demanded in or on one side. It is for an obvious reason that the spirit of free trade has not been and cannot be applied to those avocations commonly termed

professions. The inhabitants of civilised countries having desired legal or medical assistance, and well knowing that they were unable to form any immediate judgment on the quality of that assistance, have looked for and obtained external means of protecting themselves from bad law and bad medicine—means external to themselves. Such communities have required that lawyers, doctors, and others should give some evidence of qualification to official examiners, or have aided professional men to erect certain social barriers, known as etiquette and the power of the cold shoulder, for the exclusion of quacks, charlatans, and other unqualified persons from their ranks. Now, pharmacy is largely a professional avocation. In pharmacy we are on the border-line of the commercial and the professional. Pharmacy is partly a trade, partly a profession. The purchase and sale of an ounce of tincture of rhubarb is *per se* a transaction purely commercial. But if the dose is asked, or say, the best mode of administering the medicine, the transaction assumes a professional character: while the still more important question as to whether the purchaser is supplied with a trustworthy or a worthless article turns entirely on the vendor's professional knowledge—chemical, botanical, and pharmaceutical knowledge. In those subjects of professional knowledge he is educated; in those subjects of professional knowledge he is examined; to the extent to which he possesses that knowledge, to that extent he is a professional man. Trade and profession form the warp and woof of pharmacy, interwoven in every part of the fabric. The doctrines of free trade cannot, I say, be applied to professions. Therefore the principles of free trade cannot be applied to pharmacy. The purchaser of drugs cannot protect himself from the purchase of bad drugs. He is not, himself, in a position of freedom in this matter. Therefore he needs protection by methods external to himself. The most ardent champion of freedom will, I am sure, recognise this principle. The Legislature has recognised it, and the public has recognised it, and it has been applied to the practice of pharmacy as to medical and to legal practice, not by excluding unqualified chemists and druggists from practice by a code of etiquette or unwritten social law—for, unfortunately, that method appears to be inapplicable in pharmacy—but by rendering illegal the use of the name or title "Chemist and Druggist" by unexamined and unregistered men.

The Pharmacy Act of 1868 was, at all events, intended to provide such protection. It has partially failed because incomplete; failed because, while requiring that chemists and druggists shall be properly educated, it has not prevented the uneducated from palming themselves off as chemists and druggists. The Act practically says sellers of drugs must be properly educated, yet allows uneducated vendors to sell drugs. The failure has arisen from a wrong method of protecting the public having been adopted—a method which could not be foreseen to be wrong, but which has proved wrong in the working. The method adopted was that of raising a legal fence around the mere name "Chemist and druggist"; the method which should, we now see, have been adopted was that of rendering illegal the retail sale of the simple and compound drugs of the British Pharmacopœia (with certain exceptions) by any but registered chemists and druggists, with the saving of all rights, of course, to medical practitioners.

NEED FOR FRESH LEGISLATION.

The time has come when, for the welfare of the public, the Pharmacy Act should be rendered efficient. If this be not done, a period will soon arrive when the public, unable, as I have said, to judge of the quality of drugs for themselves, will be deprived—or a great majority will be deprived—even of those external means of protecting themselves which in most districts they possess now—that is to say, they will lose the advantage of dealing with duly-educated men; for thoroughly and legally qualified druggists will only be found in the more wealthy quarters of cities. A certain proportion of drug-vendors will always, for various reasons, qualify themselves. A certain proportion of any class of men are always ready to undergo voluntarily a course of special education, with its attendant set of examinations. Pharmacists form no exception to this rule. Before compulsory examination was instituted in pharmacy—that is, before 1868—about 25 per cent. of the chemists

and druggists of this country voluntarily submitted to pretty much the same examination that all who would now call themselves "chemists and druggists" are compelled to pass. And therefore, even if the present tendency for the retail supply of drugs to pass into unqualified hands were allowed to continue, a few well-qualified chemists and druggists would, for various reasons, be forthcoming. These would no doubt place themselves and their shops amongst the wealthier classes in the west-ends of towns and in fashionable watering-places, and such classes of the public would thus be duly protected from bad pharmacy. But other classes would be unprotected from the liability to be supplied with bad, weak, or spoilt drugs for daily needs or possibly for critical times when life and death are on the balance. Such a state of things must soon come to pass unless timely legislative action be taken. I say a crisis in British pharmacy is fast approaching.

PROOF OF THE PRESENT DEPRESSION OF PHARMACY.

But before we further consider the question of remedy, evidence must be adduced in support of the assertion that potent drugs are being sold largely in nearly all parts of the country by unregistered persons. Evidence of this kind I have gathered from about 200 different districts in England and Scotland—districts fairly representing the whole of Great Britain. I have been supplied with direct evidence, in the form of price-lists, of all the important drugs in general demand issued to the public by shopkeepers other than registered chemists and druggists, and in the form of statements from competent observers as to the kind and numbers of unqualified traders who vend drugs in the respective localities. Indirect evidence has been given to me in the form of returns showing the depreciation in the value of chemists' businesses, including the cause of that depreciation, during the past five or ten years.

In November last I sent to correspondents in about 300 districts copies of a letter, the chief paragraphs of which were as follows:—"I desire to show that it is to the direct interest of the public that something should be done to prevent the rapidly-increasing sale of drugs by unregistered and incompetent persons—an irregular form of trade which is said to have produced already, or largely contributed to the production of, a seriously-depressed condition of retail pharmacy. To this end it is desirable I should have more exact knowledge of the stated depression, and of its extent, than any single individual can at present possess. May I beg you, therefore, in the interest of yourself and your fellow-pharmacists, to help me by telling me how far the oft-recurring statement that 'pharmacy is not what it used to be,' is true in your experience. For example, how far, in your judgment, is a business worth less than formerly; how far, in your district, are drugs sold by grocers, drapers, &c., or by unregistered men pretending to be chemists and druggists; what proportion of an average drug business in your vicinity is pure pharmacy as compared with the part that has little or nothing to do with drugs; and is the pharmaceutical portion increasing or diminishing? Do you think that the taking of fewer or more concentrated medicines by patients affects the question; or that the depression in pharmacy is greater than has occurred in most callings of a general business character during the past few years? Can you throw any light on the matter?"

The correspondents selected were, first, a chemist and druggist in most towns in Great Britain having one or more members of Parliament, or containing three members or business-associates of the Pharmaceutical Society of Great Britain; second, representative pharmacists whose acquaintance I have made in my visits for twenty consecutive years, to the twenty towns at which the British Pharmaceutical Conference has assembled; thirdly, two or three different classes of persons not actually engaged in retail pharmacy, but who have daily dealings with retail pharmacists. Of the 300 correspondents I addressed, about 200, either at once or on a second application, sent me full replies to the questions, many offering to contribute any further information that might be desired. The greater portion of, indeed, practically all, the replies were, as might be expected, so far private that, while I am at liberty to make public use of the information they conveyed, I am not authorised to give the names or addresses of the writers. I thank them cordially for their help, and I doubt not that

were any public inquiry into the relation to each other of the State and pharmacy to be instituted, by a Royal Commission, by a Committee of either House of Parliament, or by any other authority, the majority of them would be willing personally to substantiate their statements.

EVIDENCE OF PRICE-LISTS.

Respecting the evidence which price-lists afford of the sale of drugs by tradesmen other than druggists, little need be said. Every retail trader who, finding it expedient to hold to the fiction that number one is the first law of nature, proceeds to roll three or four, or, it may be, ten or twelve, businesses into one is impelled by convenience to compile, and by policy to publish, a priced list of his many articles of sale. Most householders in this country have probably received many such lists sent to them by way of advertisement. In these lists drugs are commonly included. Every drug in ordinary demand will be found there except the few very powerful poisons scheduled in the Pharmacy Act. Indeed, even these are not actually excluded, for, cited not by their own names, but by some fancy title, and clad under the misleading term "patent medicines," even the most virulent poisons are sold by those unregistered persons.

TRADING AND PROFESSIONAL PRICES.

Not only, however, do such price-lists afford evidence of the sale of drugs by traders other than druggists, but, the prices quoted showing only a slight trading profit above the wholesale price, the inference is fair that the vendors are as professionally unqualified as they certainly are legally unqualified—that is, unregistered. For a 5 or 10 per cent. profit may possibly remunerate the man who is only a trader—indeed, who does not aspire to be anything more—such as a grocer or draper, but is quite inadequate for a duly-qualified chemist and druggist, in obedience to the demands of the public as expressed in the Pharmacy Act, and to his own sense of what is right as gone through a proper pupillage in pharmacy, chemistry, botany, and materia medica. As well might we expect a lawyer to thrive on a 5 or 10 per cent. profit on his stationer's work and his office expenses, or a doctor to flourish on a 5 or 10 per cent. profit on his dispensing-work and his surgery expenses. These men must be remunerated for the *brain-work* they do for the public; they are *professional men*. The druggist is in part a professional man, and must *pro tanto* be paid for his brain-work. (And here, in parenthesis, I may remark that the public never stigmatises a lawyer or a doctor as "a man who gets elevenpence three farthings out of a shilling," although this pelsarcasm would be far more literally true of either of them if it were founded on the insignificant amount of their professional costs or surgery expenses than it is of the druggist. The public should not so stigmatise the druggist. They should regard the charge for a bottle of medicine as they regard the charge for a legal deed or for a medical prescription, namely, as a fee. For a fee it is in every professional sense of the word. And, in order that the public may be set right in this matter, I strongly recommend druggists to think and speak and write of their charges for medicines as fees. I do not recommend that such a view of the case be thrust on the public; for, although persons are accustomed to pay no fees, indeed a whole series of fees, for their law—fees to counsel, to their clerks, to solicitors, and for stamp duties, &c.—they will say they object to pay two fees for their physic, that is, one to the physician and one to the pharmacist, forgetting that that is what they already do when they obtain medicines of a chemist and druggist, whose charges and qualifications are commensurate. What I do recommend is that, when occasion arises, the public be reminded that that is what they do, and that, at all events, this view of the matter be put forward by the druggist whenever he is stigmatised as an ordinary tradesman doing more than an ordinary tradesman's profit. The public, having demanded for their own safety, by means of the Pharmacy Acts, that the retail druggist possesses professional knowledge, will not knowingly stultify themselves by treating him as a tradesman only. I now resume my argument. The public recognise the value of professional services, and not only do professional men commensurate fees, but are only too ready to find such services at their disposal. Were any man setting

himself up for a lawyer or a doctor to offer to charge the price only a trader's price of 5 or 10 per cent. profit on the expenses, he would rightly be suspected of having no professional knowledge for disposal. Just so should a vendor of drugs, who charges only a trader's price of 5 to 10 per cent. on the wholesale price of the drugs, be suspected of having no professional knowledge respecting those drugs at his disposal, no such knowledge as those chemists and druggists must possess who are properly qualified according to the Act passed for the safety of the public, namely, the Pharmacy Act. The traders I am now describing charge only a 5 or 10 per cent. profit on the wholesale prices of drugs, therefore they may be rightly set down as not having the knowledge which the public, through the Legislature, has decided that chemists and druggists should possess. Unfortunately, the public, while realising the position in which they stand to men who are wholly professional, as the lawyer or the doctor, do not realise, and perhaps never will quite realise, the position in which they stand to the real chemist and druggist. For the trading side of his work for the public obscures the professional side. The druggist may do something towards inducing those of the public who raise the question, to regard this matter in the proper light, if he habitually term the charge for medicine prepared from a prescription *a fee*, as I have suggested; but probably not a course of endeavour to educate the whole of the public up to this point of treating him as in part a professional man would be quite successful. Where the public cannot judge for themselves respecting the qualifications of a professional practitioner, even to the extent to which they judge in a general way of the position in which they stand to medical or surgical practitioners, there the aid of the Legislature should step in. The public cannot, as regards pharmacy, judge of the pharmaceutical ability of a vendor of drugs. Therefore the Legislature should step in and aid the public by enacting, not only, as at present, that every man *calling* himself chemist and druggist should be properly educated, but that every man *practising* as a chemist and druggist should be properly educated.

The price-lists I have described show, first, that traders whose names are not to be found on the State Register of chemists and druggists *practise* as chemists and druggists. Secondly, they afford presumptive evidence that such traders are not properly qualified. This is a serious state of things for the public welfare, all the more so that the public cannot of themselves detect it.

SMALL RELATIVE INCREASE OF PHARMACIES.

Moreover, it is a condition of things pervading the whole country. Where the wealthy congregate it is not so obvious; elsewhere its effect is only too evident, either in the reduction of the number of assistants in a chemist's shop, in the discharge of the one assistant, the conversion of the business into one of another kind, the owner still running on the pharmaceutical register, or in the closing of the shop altogether. Indeed, where one chemist's shop has been opened in either of our many new neighbourhoods, it has probably been closed in the older districts; for the population in Great Britain has increased by nearly 10 per cent. during the past ten years, the number of registered chemists has increased in that time only 2 per cent. The number was 13,216 ten years ago, last year it was only 14,714. Nay, in view of the fact that some of the chemists and druggists now on the register do not now actually practise pharmacy, it is clear that while the general population has increased, the number of practising pharmacists has probably decreased. Certainly the number has decreased in Ireland, if not in Scotland. What may be the exact significance of annual variations in the numbers on the register cannot, perhaps, be told until time has removed all who have enrolled by mere declaration before examination of time compulsory. The quality of businesses, however—namely, their efficiency for the requirements of the public—has suffered far more than the number of such businesses. It is only too frequently when a druggist's earnings are forced below the point at which he can afford to keep a qualified assistant, the latter, to earn a living, is impelled to open a small shop somewhere in the neighbourhood, and while earning little from the practice of pharmacy, and probably not more altogether than he formerly received as an assistant, he draws a certain amount of business from his, or

some other assistant's, old master, who thereby is brought so much nearer to failure. The new businesses are not all equal in efficiency and general appointments to the old, and the old are depreciated. This action is going on all over the country.

SALE OF DRUGS BY UNQUALIFIED PERSONS.

Respecting the kind and numbers of unqualified persons dealing in drugs, the evidence I have received is overwhelming. Of the 207 replies to my questions, only six state that drugs are *not* sold by unregistered persons in the respective districts, one significantly states "not yet," fifty-five are either silent on the point, or allude to the old practice of grocers in thinly populated districts selling a few of the commonest drugs, while 145—75 per cent.—complain more or less bitterly of the serious depreciation in the value of their businesses through the sale of drugs by unqualified and unregistered persons. Without wearying my hearers or readers, I will quote from a few of the letters.

And first, as regards unregistered persons whose shops resemble those of chemists and druggists. Comparatively these are at present few in number, but quite sufficiently numerous, and increasing in numbers sufficiently fast, to show that the evil exists and that a remedy may fairly be claimed from the governing body of the State both as the guardian of the interests of chemists and druggists, as of all separate classes, and as the guardian of the welfare of the public generally. But to quote single sentences from some of the letters. No. 1. "In this town we have so-called patent-medicine shops . . . where everything except poisons is supplied the same as at a chemist's." No. 2. Here is "an open shop to all external appearance, and to the eyes of the public as much a chemist's as any other, though the would-be chemist in it is without any qualification whatever." No. 3. Here "there are two men (unqualified) keeping open shops, who sell drugs, and are generally supposed by the public to be ordinary chemists and druggists." No. 4. "Drugs are sold here to a very great extent by grocers and small dealers, but also in several cases by unregistered men whose principal feature of their business is drugs with the allied articles." No. 5. "We have a few persons pretending to be chemists and druggists, who have no qualification." No. 6. "In this not very populous district we have one unregistered man trading as a chemist and druggist." No. 7. "There is a man within 50 yards of my shop carrying on business as a chemist and druggist who is unregistered." No. 8. "Two men, who failed to pass the qualifying examination under the Act, are now in business in spite of the Act, selling everything except the few scheduled poisons." No. 9. "In a population of 30,000 about 200 shopkeepers not chemists sell drugs, as well as two unregistered men acting as chemists and druggists." No. 10. "One man pretends to be, that is, has a shop fitted up like a chemist and druggist." No. 11. In this not very large town "two unqualified persons' shops have coloured globes in their windows, and present such other appearances that the public cannot distinguish between them and those of registered chemists and druggists." No. 12. "There are several unregistered men in this town pretending to be chemists and druggists." No. 13. "One unregistered man pretends to be a 'dispensing chemist.'" No. 14. "We have two shops here kept by unregistered persons. They sell everything just as a chemist does. The public cannot distinguish these shops from those kept by qualified men. The windows, &c., are fitted up like ordinary druggists' shops. I know for a fact that each sells not only ordinary poisons, but the scheduled poisons, though they are too wary to be caught." Could any evidence be stronger than that of these fourteen letters to show that an Act designed for the welfare of the public in a vital matter is being systematically evaded. Here are some twenty-five or thirty cases of persons openly defying the spirit of the Act, and of the clear intention of the Legislature and of the State. From the tone of many more of my letters, I gather that this number of cases might be multiplied considerably. And such evasion of the law must grow if not checked.

As for the evidence my correspondents give of the sale of drugs on a large scale by persons who do not openly pretend to have pharmaceutical knowledge, it is too voluminous for more than a glance. I have already given an alphabetical list of twenty distinct classes of shopkeepers, other than

druggists, who deal in drugs. This list is compiled from my letters, all of which agree that the drugs are sold at prices from a little below to 5 per cent. above prime cost, and very frequently as mere decoys, baits, or lures, to entice customers from other shops, and secure them as purchasers of more profitable articles. The prices which the druggist has been in the habit of getting for drugs—and which include payment for his professional knowledge, his special manipulative skill, and his personal guarantee of purity and efficacy—have been pointed out to the public by the traders described, they at the same time drawing attention to their own much lower prices, the inference insinuated being that similar savings (?) would be effected in all other things purchased from them. The unfortunate part of this matter is, I reiterate, that the public cannot, and are never likely to be able to, distinguish between good and bad drugs, or not until the health of the community has seriously suffered, and the livelihood of a large class of respectable citizens has been taken away from them. One writer says that, according to the statements of a manager in one of the largest store-shops of the kingdom, the drug side of a co-operative store, or store shop, seldom pays *per se*; that even if a loss accrues, the sale of drugs is a cheap advertisement for the rest of the concern; the said manager adding, "Do you suppose we should care for this trumpery return, but that it enables us to say, 'See what extortioners these chemists are; see for yourself that you save threepence or more out of every shilling by dealing with us.'" Co-operative stores are rightly classed by my correspondent with other non-pharmaceutical shops. Indeed, as regards management, they only differ in being carried on by not less than seven owners, while most druggists' shops are carried on by one owner. It seems a monstrous anomaly that the law should allow seven or more men to carry on the business of chemists and druggists, and call themselves chemists and druggists, without being qualified, while it does not allow a single owner to carry on the business of a druggist and call himself a chemist and druggist without being qualified. And, according to the judges, that is what the present Pharmacy Act allows. It is said that a co-operative store company may even sell poisons if no registered assistant is employed, but a single unregistered shopkeeper must not sell poisons, even though he employ registered assistants. Surely there is one law for the store and another for the shop. I could give scores of quotations like the following: "Grocers, drapers, and others, now sell in this town not only Epsom salt, senna, castor oil, &c., but tinctures and other preparations, and, in short, everything but poisons." "Under cover of the patent medicine stamp, poisons such as laudanum, opium paste, and other morphia preparations, are sold here pretty generally by non-pharmaceutical shopkeepers." "So-called wholesale druggists, but who are little more than retailers, supply small outsiders with all drugs, including tincture of opium." "With us the evil of drug-selling by non-druggists is growing." "All the small shops here sell packeted goods and paregoric *without opium*!" "Grocers, teamen, and tailors sell so-called patents, packeted goods, and proprietary articles as decoys, telling their customers that such things show fair specimens of their prices." "Men other than druggists sell drugs, but the articles I have seen are as low in quality as in price." "At the shops of the drysalers and general dealers in this neighbourhood, there is sold quite commonly, as a remedy for diarrhoea, compound tincture of rhubarb, into which is poured a few drops of laudanum." "At the shops named no doubt the public get supplied with cheap, but, to my knowledge, not with the best drugs."

DECLINE OF BUSINESSES.

And now as to the somewhat less direct evidence that "pharmacy is not what it used to be." Only 13 of the 207 druggists who replied to my questions could say that pharmacy was as flourishing as ever in their experience. Five of those resided in Scotland, one in the western part of London, and six in the provinces, while the shop of the thirteenth was on one of the smaller islands of Great Britain. One of the provincial six explained that although the chemists of the town were doing as well as ever, they had not increased in number in a period during which the town had increased threefold in population. Only four of the thirteen—four in 207—could say that pharmacy was

distinctly better than it used to be. Three of the four resided in Scotland, the fourth was the pharmacist of one of our smaller islands. On the other hand, more than half of the letters afford unquestionable evidence that pharmacists are very much farther off prosperity than they were ten years ago. The President of one of those many Chemists and Druggists' Associations which exist, as much if not more, for the benefit of the public than of the pharmacists, says, "There is much harass amongst the general body of chemists and druggists." Another representative says, "Pharmacy in this district is much injured and much depressed, and calls earnestly for a remedy in the interests of the public and in common fairness to ourselves." A third, writing from a large provincial town, says "The chemists and druggists of the town have had a meing to consider the subject of your note. Nothing but depression and hopelessness was manifested. To say that pharmacy is not what it used to be is to use a ridiculously mild phrase. It bids fair to be wrecked." A fourth, in another part of England, says, "We are suffering great trials here, and must suffer more unless the dealing and working with drugs is restricted to druggists." A fifth, in quite another district, says, "Pharmacy in this neighbourhood has degenerated woefully. In a very few years fourteen druggists had become ten; five had the higher title of pharmaceutical chemist, now I am the only one." A chemist in the Southern half of London says, "The sale of drugs by unregistered and outside persons is sapping the foundation of retail pharmacy. Within 500 yards of my shop drugs are being sold at about 2½ per cent. profit, by four or five oilmen, two herbalists, four hucksters, one saddler, three corn-dealers, one publican, and one ironmonger. . . . For the last six years my returns have steadily fallen 100 a year. A similar or worse result would be showy in pharmaceutical neighbours." Of one town of fair size the statement is made that "pharmacy is being obliterated here; we are becoming general dealers." I could give scores of similar quotations.

DEPRECIATION IN THE SELLING-PRICE OF BUSINESSES.

In answer to my questions as to how far a business is worth less than formerly, 115 of my correspondents at the depreciation at an amount varying from 25 per cent. to 50 per cent. in ten years. Many gave me, in condensed figures which showed that the loss in value was still greater. Businesses in wealthy districts appear to maintain their value chiefly because their scarcity produces a little competition for them. One correspondent, of great experience, says, "Ten years ago a business then returning 1,000l. or 1,000l. a year would readily command 500l. or 600l. for goodwill, but now with difficulty would realise 150l. Those with returns below 1,000l. and above 500l. a year would fetch 200l. for goodwill, but now are transferred for the mere value of stock and fixtures. Businesses turn over annually, sums below 500l. a year, were formerly worth 100l. for goodwill; now hundreds of these are in the market quite unsaleable at any price." Another writer of equal wide experience says, "With the exception of one or perhaps two businesses to be found in good towns, all have materially suffered during the past ten years." At this state that "Businesses in these counties often sell for one-third of what they would have fetched a few years ago, while in the many it is difficult to get premiums at all." A chemist in the suburbs of a large city says that "pharmacy is rapidly leaving many suburban druggists. . . . The oilman and grocer and the stores are gradually destroying pharmacy. . . . A blue pill and black draught, lenitive elixir, essences, tinctures, syrups, all kinds of pills, are sold at prices for which I could not make the articles properly. A letter from a metropolitan suburb, densely populated, states that, "One business here, estimated twenty years ago to be worth 3,000l., sold eight years since for 1,750l.; the disappointed purchaser sold it three years ago for 1,000l.; it has changed hands twice or thrice since; it would now be dear at 600l. Another business in this great town was based about twenty-two years ago sold for 950l.; it was purchased eighteen months ago for 540l. A neighbour's business was valued three years ago at 800l.—a well stocked, we kept a double-fronted shop, useful house, good garden—it was sold to a surgeon twelve months ago for 350l.; its returns are now, perhaps, 300l. a year." A writer in a provincial town

er 100,000 inhabitants, says, "I fear my account of decay here would be too gloomy to receive credence. I have to eke out a living by some additional business. Either we feel most despondent, and I believe any store in the town would make a present of his fixtures to a person taking over his business and liabilities." A druggist in a smaller town writes:—"Fifteen years ago an announcement that my business was for sale brought me offers of 500%. I had occasion to change my intention. But now I cannot get offers of 100%." More than half of our correspondents give statements to the same effect.

PROPORTION OF PHARMACEUTICAL TO OTHER BUSINESS.

How much more varied are the answers to the question respecting the proportion which in the respective districts the pharmacy proper, of an average business, bears to the rest of the business than that has little or nothing to do with drugs; while the responses elicited by the inquiry as to whether the pharmaceutical part of the business is increasing or diminishing in amount are less varied. Only in six cases do my correspondents report an absolute increase in purely pharmaceutical business. Four report an increase in returns but a decrease in profits; they have had to do more work for less pay. Several reporting a decrease both of returns and of profits, yet state that the relative returns from the pharmaceutical as against the non-pharmaceutical part of the business have increased, the explanation being that while some of the pharmaceutical portion has been taken away from them, severe competition has obliged them to relinquish very largely the sale of non-pharmaceutical goods. On the other hand, many having had the sale of drugs taken out of their hands by unqualified traders, have been compelled by the pressure of *res angusta domi*, to cultivate the sale of general goods until they have almost ceased to be chemists and druggists, and have become grocers, oilmen, general dealers, &c. Not a few, indeed, having had their half-professional, half-commercial ground cut from under them by the unqualified and unregistered traders in drugs, and not having the full commercial power and training of their competitors, have lost most of their business, whether pharmaceutical or general. With such a state of things no one will be surprised to learn that different druggists fix the proportion of pharmaceutical to non-pharmaceutical business done in their shops at figures varying from 5 to 90 per cent. Some describe the amount of drug sales or general pharmaceutical work as "very little," "small," "very small," "very limited." Others say, "We never see a prescription," "We seldom see a prescription," "I only now make up an average of four prescriptions a week, and I am generally credited with having the best business in the town." "There are four druggists here and we find that latterly we have dispensed about one prescription per head per week."

Many of my correspondents complain of a special feature of unfairness in the competition to which they are subjected by unqualified traders, namely, that these persons often sell drugs of very inferior quality, probably without knowing it, and at the public, in similar ignorance, as readily purchase what is almost if not quite useless stuff, tempted, doubtless, by the lowness of price. Unfortunately, very few of our sales can be touched by the Food and Drugs Acts. Only such an instance as paregoric being sold without the chief ingredient of that medicine, because its active principle is one of the substances legally deemed "poisons," does even appear to be any means of checking the practice combined of, a practice not only unfair to the druggist, but detrimental to the health of the public. Public officials sometimes express wonder as to where all the worthless or partly spoiled drugs go that are frequently exposed for sale at the large wholesale markets. My correspondents could apparently, give information which would satisfy that

CONCLUSIONS.

After all this evidence, I think everyone will admit the following propositions. First, that pharmacy in this country, here and there in a fairly prosperous state, and now everywhere actually in *extremis*, is nevertheless in a very seriously depressed condition. Secondly, that the prominent cause of the depression is the loss of trade in drugs of guaranteed quality and loss of professional practice of pharmacy by the responsible qualified and registered

chemist and druggist, and the acquirement of trade in drugs of unguaranteed quality by the irresponsible, unqualified, and unregistered trader. As for the professional practice in drugs lost by the qualified druggist, that has not been acquired by the unqualified druggist, and therefore has been lost to the public. Thirdly, and chiefly, this condition of things is seriously prejudicial to the public welfare.

MINOR CAUSES OF DEPRESSION.

No doubt other minor causes influence the depression. And these must now be noticed shortly. But they do not in any important degree dwarf the main cause just stated.

Thus, respecting the practice of physicians prescribing more concentrated medicines than were administered formerly, only 19 per cent. of my correspondents think that it affects the question under consideration, 26 per cent. think it does not, and the remainder express no opinion. A few years ago this practice bade fair to diminish the druggist's income, he generally charging for prescribed mixtures a professional fee of a shilling or two rather than a trade price, a fee which custom had made dependent on the size of the bottle more than on anything else, a fee therefore, the value of which was in inverse proportion to the state of concentration of the medicine. But pharmacists have never, for that reason, made the matter a subject of complaint. They have rather pointed out the great danger of patients, nurses, and families being in possession of what were often deadly fluids; and the practice has gradually been relinquished. In my letters cases are still cited, however, such as 32 powerful doses of prussic acid in a single bottle of medicine; undiluted tincture of nux vomica, or strong solution of strychnia or strong solution of arsenic, in 1 or 2 oz. quantities, so many drops to be taken in water. In one instance a whole ounce of prussic acid, enough to poison seven or eight or more people, was ordered for one patient.

Again, persons take less physic than formerly. Children in health are not now dosed weekly, even with brimstone and treacle, and healthy adults do not, as a rule, periodically dose themselves. Homœopathy and hydropathy have had their influence in this direction. Medical men have ceased to prescribe those complicated combinations of half a dozen or a dozen remedial agents which could scarcely be dispensed elsewhere than in the well-appointed shop of a chemist and druggist. They rely now rather on a few active principles or on the official single compounds of the Pharmacopœia. Some idea of the degree in which fewer drugs, &c., are prescribed than, say fifty years ago, may perhaps be gathered from the fact that in 1830 the cost of drugs per in-patient per annum at one of our large metropolitan hospitals, St. George's, was 16s. 5d.; while in 1880 it was less than half that sum, namely 7s. 11d. The former figures, however, include sums for leeches, agents now seldom employed.

Speaking of hospitals, there can be little doubt that these and the many other charitable medical institutions supply advice and medicines gratuitously to large numbers of persons who can well afford to pay, not only the medical practitioner for his diagnosis, but the druggist for his physic.

Here is a third minor cause of the depression amongst chemists and druggists. In the place of many of the prescriptions which formerly found their way to the druggist, physicians not unfrequently rely on and recommend proprietary preparations, forgetting, in their laudable anxiety to cure their patients by any or every means at their disposal, that they are thereby not only instructing the public in the art of prescribing for themselves, but also in the art of prescribing drugs which are often procured from neither the doctor nor the druggist; for patients carefully scan prescriptions, read them more easily than patients did fifty years ago, draw their own conclusions respecting those now under consideration, and then consult their grocer's or storekeeper's price-lists. This art of self-losing is further fostered by the advertisers of secret remedies, an art which in the long run is harmful to patient, doctor, and druggist alike, and only indirectly profitable to the twenty different classes of non-pharmaceutical shopkeepers who now deal in such things. Popular medical books and magazine articles addressed to the public all contribute to the same end. The result ensues that while the public on the whole take less physic than formerly, large numbers of those who do take much medicine take it in a manner over which neither

doctor nor druggist has any control. Not a little of this result is due to what I conceive to be mistaken policy on the part of medical practitioners. Verbally and through the press they never cease denouncing the druggist for compliance with a customer's request to be recommended a simple remedy, a practice commonly called counter prescribing, forgetting that they are thereby not only directing customers away from the druggist, but shutting the doors of their own consulting-rooms to thousands of patients who had they not been thus prevented from seeking advice of the druggist, would have been told by that useful functionary that the case was one demanding treatment by a medical practitioner. Most druggists can tell of many cases in which serious illnesses have probably been prevented and even life saved by their timely recommendation to the person to obtain the aid of a medical man. Besides, if you debar the public from seeking a simple remedy at the druggist's counter, either by medical denunciation or by turning over drug-dealing to co-operative stores or to profit-cutting general dealers, you not only do not prevent prescribing by others than medical men—for the public always did and always will prescribe for themselves in their own way, either with or without the aid of a druggist—but you play straight into the hands of the patent-medicine monger and the maker and distributor of secret remedies; you weaken the pharmacist and the physician; and you do harm to the physic-takers themselves. In the interest alike of pharmacist, physician, and patient, this patent-medicine question needs careful consideration, with a view to reform. Patent medicines may and do contain on the one hand powerful poisons, and on the other useless substances. The well-trained druggist either already knows or can form a shrewd judgment of the nature of these officially stamped articles, and, by timely caution or advice, can prevent much mischief resulting from the careless or ignorant use of a potent remedy, or from a too thoughtless reliance on worthless materials. No other shopkeeper has similar knowledge. The sale of patent medicines should therefore be restricted to qualified and registered chemists and druggists. By-the-by, the pseudo-official character or guarantee and implied value given to these articles by the presence on them of "the Government stamp" should be removed altogether by the withdrawal of the stamp, a substitute for the revenue it produces being found in a greatly-increased charge for the licence to sell patent medicines, and perhaps a charge for a licence to sell all other medicines. Such a change would not be unpopular with druggists.

Another minor cause of the depression in pharmacy is found in the fact that many chemists and druggists have thoughtlessly encouraged the purchase wholesale and distribution retail of what are termed packed or packeted goods—be they patent medicines, proprietary preparations, simple or compound drugs, coated pills, or what not—instead of themselves preparing such articles; not foreseeing that they were, so far, transforming themselves from professional men into mere trade agents, and that goods of that kind once established in trade could as easily be dealt in by non-pharmaceutical as by pharmaceutical agents, and would only command agents' profits. Such men, also, have not foreseen that to the extent to which druggists thrust all trouble and responsibility, whether as regards packeted drugs or any other drugs or compounds, on the wholesale druggist, who, by the way, may or may not be a competent pharmacist, they not only make mere agents of themselves, liable to lose their agency at any time, but they sap the foundation of retail pharmacy as a separate avocation, destroying its professional part and rendering its trade portion liable to be turned into other trade channels. Worse still, their action, or rather inaction, tends to deprive the public of that safeguard against the supply of bad drugs which the Pharmacy Acts were designed to afford. This minor cause of pharmaceutical depression will become a major influence unless soon checked. Of course many medicinal preparations always have been and always will be made better and more economically in a large wholesale way than on a small retail scale. These are exceptions. But the majority of such things could be prepared as easily, and often more cheaply, if with a little trouble, by the qualified chemist and druggist; and he has only himself to thank to the extent to which, through not taking trouble, or through not working

professionally, he may have experienced loss of professional or commercial advantages. He must not blame wholesale dealers for prosecuting a variety of trade he has himself relinquished. Wholesale druggists, considering the drugs must pass through their hands, no matter by what agency those drugs are distributed retail, would probably prefer their old and simple rôle, and supply drugs to retail druggists only. But if forced by circumstances to do the retail druggist's duty of packing drugs in retail-sized parcels, and to sell them to non-pharmaceutical distributors, the wholesale druggists will, of course, do so with little hesitation. The mischief is that unqualified wholesale dealers may, and do, start up and perform such work. And we may predict that wholesale grocers and others, finding other dealers' troubles amongst their own shopkeeping customers, will themselves begin to deal in drugs; all of which is not to the advantage either of the public, the medical profession, wholesale druggists, or retail druggists. "Drugs for the druggist" is a cry in which each of these four classes of the community, in their own best interests, may unhesitatingly concur. Haters of monopoly. For certain it is that competition in this over-populated country, and the jealousies and distrust of one another inherent in human nature, and not at least in pharmaceutical human nature, will always prevent the evils of monopoly making headway in pharmacy.

The general depression in trade, especially in agriculture, which has affected this country during the past few years has, of course, affected pharmacy. Druggists do not complain of this. But with scarcely an exception, correspondents state emphatically their opinion that the depression in pharmacy is far greater than in other callings. A want of prosperity, general to the country, is shared by pharmacy—but this is only one of the minor causes of pharmaceutical depression.

During these bad times, too, the proportion of retail men who dispense their own medicines has, I am assured by nearly all my correspondents in England, greatly increased. The reverse appears to obtain in Scotland. Indeed, it appears that not unfrequently in consultation cases in which a physician is called in—at all events, in the southern half of Great Britain—the prescription of the physician is intercepted by and dispensed by the medical practitioner. It would seem from this as if the old days of the apothecary of past centuries were coming round again. And from what I have previously stated respecting the increasing trade in drugs by grocers and others, it would seem as if the days of the drug-grocer—the parent of the drug-gist, as the latter name implies—were after more than two centuries coming round again. This state of things would be, however, for Old England, not progression, but retrogression, not advancement, but degradation, not evolution, but devolution. *Ubi enim?* No, we hope and believe that this condition of pharmacy is only temporary. Besides, the medical man of the present day is one who, while having greater professional knowledge of medicine—that is, of diagnosis and therapeutics—than the old apothecary, has less professional knowledge of pharmacy. As a pupil in medicine he had too many other subjects to study, and as a practitioner he has too many other matters to occupy his attention, to low of his possessing the old apothecary's acquaintance with pharmacy, and still less to allow of his having anything like the modern druggist's professional knowledge of pharmacy. And, as regards the future, the increasing demands on him in matters relating to the preservation of health, as well as to those which are ever increasing his power of dealing with disease, will still further remove from him opportunities of studying pharmacy. So that the selling of medicines and raw drugs by medical men, even if it did become sufficiently general, which is not in the least desirable, would not relieve the public from the difficulties encountered in deserting the druggist. The point to which, however, attention is now more especially drawn, is the tendency of the medical man to be his own druggist, decreasing up to about ten years ago, has since that time increased, and that this increase is one of the minor causes of the depression of pharmacy during the past decade.

Improved sanitation, a more extended knowledge of hygiene, less overcrowding, a more general realisation of the importance of exercise for the body, and of mental and physical recreation generally, a more temperate use of the most seductive stimulating fluid and of those dishes which

ance but not nourishing; the employment of purer
 for drinking purposes, a diminished superstitious belief
 in the therapeutical virtues of inert substances—in short, a
 knowledge of the laws of life and of health, have
 joined to render medical practitioners and druggists
 less necessary to the world than they were sixty
 or seventy years ago. But do the members of the noble
 profession of medicine, including their half-professional,
 commercial brethren of the fourth estate in medicine,
 namely, pharmacy, complain of this advancement in know-
 ledge? On the contrary, these very men and others like
 them—by their researches and discoveries freely communi-
 cated to the world through the machinery and periodical
 literature of the various medical, chemical, and pharmaceu-
 tical societies, conferences, and associations—these very
 men are these who have most largely contributed to this
 advancement in the wisdom and welfare of mankind, and
 glory in it more than they do themselves.

But the labourer for the good of all is at least worthy of
 a reasonable reward when working at his calling. The phar-
 maceuticals will continue his researches for the well-being of
 his fellow-men. When, however, in Great Britain, the State
 says to him, "It is necessary that you who deal in drugs
 should for the welfare of the community be properly trained
 as an apprentice, be educated, be examined, and be
 registered," and then, when the druggist has willingly com-
 plied with the demand, the State permits untrained,
 uneducated, unexamined, and unregistered men to deal in
 drugs, the trained, educated, examined, and registered man
 rightly feels aggrieved and turns to the State for redress.
 Let this always be remembered, however, namely, that not
 only or himself does he seek the remedy. He reminds the
 State that it was for the protection of the public health
 that he was required to be educated, examined, and
 registered, and that it is in the interests of the public far more
 than in his own interests that he asks that this protection
 be saved from being a sham, as well as that it be saved
 from being a mere handicapping arrangement preventing
 him from making his way in the race for a livelihood.

RESULTS TO THE PUBLIC.

Is it never occur to the man who purchases cheap
 at a co-operative store, at a general dealer's, or some
 other shop, to wonder what disadvantages would result if
 every one adopted that course? A very little reflection
 would suffice to picture a few. In the middle of a night, at
 a time of sudden and serious illness of one whose life is
 precious, he will require a certain trustworthy medicine. To
 possess it he would give ten times the total of the small
 sum saved by abandoning his reliable druggist: for
 excruciating pain or perhaps something worse has to be
 remedied without delay. He does not know at which grocer's
 or general storekeeper's he could procure the drug, and he
 questions whether such a vendor would leave a bed to
 a man who is knocking at the door, even if the summons
 were heard at all; moreover, he is not certain he could
 trust the medicine obtained there. Then may come an all-
 too-true regret at the shortsightedness of the policy which
 ignores the professional skill and ever-ready service of the
 old druggist in favour of the cheap but ignorant and
 unsympathising general dealer. Again, a mother has been
 tempted to purchase pargoric elsewhere than of a druggist,
 knowing that, unless the sale is an illegal one, the
 child is free from that opium to which, when present in
 proportion, much of the efficacy of the medicine is
 due, the compound being thus weak, she almost necessarily
 goes to the habit of giving considerably enlarged doses to
 her children. Some day there happens to be in the house,
 by accident, pargoric of proper official strength purchased
 of a chemist and druggist. The usual large dose is adminis-
 tered. Then, perhaps, all efforts to rouse her child from
 sleep are unavailing. But to multiply illustrations
 of general facts are so palpable is unnecessary. I have
 in my opening remarks, shown why the supply of
 drugs when uncontrolled by the State, is seriously prejudicial
 to the interests of the public. Eliminate special professional
 knowledge from pharmacy, and let drugs be sold by any or
 every shopkeeper, and the public will have no guarantee that
 they are not supplied with drugs fair in appearance to the
 untrained eye, but worthless to the trained eye of the drug-
 gist, and which once, perhaps, were of good quality, but

which, without altering in appearance, have become spoilt
 by age, medicines weaker than they should be, medicines
 stronger than they should be, poisonous fluids for external
 application not properly distinguished from those for internal
 administration; indeed, the public will have no guarantee
 that they are not supplied with the wrong medicine
 altogether.

To put the matter still more broadly. Every civilised
 State has adopted means for ensuring the supply to the
 public of trustworthy drugs by professionally educated drug-
 gists. Such almost universal action would not have been
 taken had it not been called forth by universal necessity.
 The necessity is at least as great in Britain as in any country.
 Indeed, that necessity has been partially met even in this
 country by the enactments relating to pharmacy. But those
 Acts are working incompletely. The health and welfare of
 every individual in this land calls for a remedy for that
 incompleteness.

THE REMEDY.

The nature of the remedy is simple. It has more than
 once been foreshadowed in the course of this address. It
 involves no new principle. It consists merely in an extension
 of the spirit and letter of the existing Pharmacy Act. Under
 that Act about a score of medicinal substances are deemed
 poisons within the meaning of the Act, and are to be sold
 retail, as a rule, only by registered chemists and druggists.
Let that list be considerably extended, saving all rightful
interests of persons who otherwise would be unfairly prej-
udiced. Let the retail sale in open shop of most of the
 simple and compound medicines of the British Pharmacopœia
 be carried on only by qualified druggists. Is the question
 asked, "Where is to come the machinery for giving effect
 to such an extension?" The present machinery under the
 Pharmacy Act is ample for the purpose—with perhaps a few
 improvements in matters of what may be termed pharmaceu-
 tical police, for giving better effect to certain sections of
 the Act, as, for instance, the employment of the inspectors
 under the Food and Drugs Act, or other inspectors, to see
 that unqualified traders do not infringe the Pharmacy Acts.
 In sparsely-populated districts let drugs be sold by unregis-
 tered persons: these acting, however, only as agents, the
 drugs being contained in duly-secured packages, bearing the
 name and address of a registered chemist and druggist who
 should be responsible for the character of the contents. The
 parcels post has removed most of the transit difficulties con-
 nected with such an arrangement.

But it is no part of my duty in this address to enter
 further on the political details of practical pharmaceutical
 legislation. I desire to supply the materials of politics
 rather than to discuss politics. I have gathered together
 and furnished information, and have submitted arguments
 that should satisfy every Englishman that there is a serious
 breach in the established relationship of the State to one
 important branch of medicine by which the health and
 welfare of the State is maintained, that is, to pharmacy. I
 commend that information and those arguments for serious
 consideration by members of Parliament, by the press, and
 by the public. For myself, I have no manner of doubt that,
 could the attention of every thinking man in this nation be
 gained for one short hour to this present relationship of the
 State to pharmacy, he would vote for its reform in the direc-
 tion now advocated.

Mr. JAMES KERSHAW (Southport) moved a vote of thanks to the Pre-
 sident for his address. It was a thoughtful and suggestive treatment of a
 difficult subject, and he wished it could be in the hands of every member of
 Parliament. The Pharmacy Act had intended that the public should
 receive its drugs through, and only through, the educated body it created.
 It had failed. One part of the cure is a correct diagnosis, which the
 President had very skillfully provided. All had their own ideas about the
 remedy. There was no doubt that many received relief from hospitals and
 dispensaries for whom it was not intended, as they were in no need of
 charity. They ought to agitate that out-patients should not receive their
 medicine, but should be compelled to get it from a chemist.

Mr. SYKES (Southport) had much pleasure in recording the vote of thanks
 to the President. He had listened to the address with the utmost pleasure
 and enthusiasm. It did not refer to what had yet to be done in Parlia-
 ment, but he hoped they would not rest till the law was altered.

Mr. JOHN MOSS (London) wished to support the vote. The President
 had got together facts never before collected, and had marshalled them as
 had never before been done. He had presented them in a form which seems
 impregnable, and all hoped that it could not be assailed from without.

Mr. S. R. ATKINS (Salisbury) said the present was a very fitting converse to the Address of the President at Southampton. He then dealt with the relation of pharmacy to the State, or the collection, preservation, and distribution of drugs; now, the relation of the State to pharmacy in the distribution only of drugs. The picture was painted in the most sombre tints, but it would be rash to say that it was not correct. He hoped that time would prove that it was darkest before day. Some parts of the difficulty were irremediable or beyond their cognisance. But, if the State demanded education, qualification, and registration, they were warranted in asking for official or professional protection. If the State required free trade, let it be free trade all round. He was glad the subject had been treated by a man of Professor Attfield's scientific standing. A lesser man would have been met with the taunt that he could not rise to higher things.

Mr. SAVAGE (Brighton) said that to obtain satisfactory legislation was difficult, because the legislators were supporters of the co-operative stores. It was almost impossible always to insist on full prices when a 13½d. article could be bought next door for 9d. or 10d. Doctors in some places had plates on their windows, "Advice and medicine, 6d.; if visited at home, 1s.," which must be very distasteful to their brethren. He knew two brothers in business in the same town, one of whom kept a co-operative store, while the other offered to supply 20s. worth of drugs at 5 per cent. less than store list prices.

Dr. QUINLAN (Dublin) said the King's and Queen's College of Physicians of Ireland had been asked by the authorities to draw up an amended schedule of poisons. A committee did the work, and added a number of articles that were deadly poisons. The answer they received was that such an addition to the schedule would "interfere with the course of trade." In Ireland the co-operative stores do not compound; the public notices that no night bell is provided, and prefers the apothecary or pharmacist, as people take sick at night and on Sundays. The abuse of the hospital out-patient system was open and flagrant. He had seen children sent with the nurse; one nurse, with three children, gave the address of a man worth at least a thousand a year. He had seen a patient sent in a brougham that belonged to the family, and could fill an hour with accounts of similar cases. The prepared pills sent from America and London did great damage. The public would learn that a nice little sugar-coated pill relieved them, would use the prescription again, and would accidentally forget to call on their physician.

Mr. YOUNG (Edinburgh) said that in Scotland pharmacists suffered or supposed they suffered less than in more Southern districts. This was due either to their self-reliance or to the increasing education of their medical men, who now dispensed much less than formerly.

Mr. FRAZER (Glasgow) wished to thank Professor Attfield for his collection of facts, which would help those who differed from him critically to have the matter clearly before them.

Dr. SYMES (Liverpool), while thanking Professor Attfield for his address, could not agree with all his deductions. His gloomy picture needed some high lights. It was the fashion to take medicine very largely, though not in the old forms. He hoped the case was not so bad but it could be set right.

Mr. SCHACHT (Clifton), in putting the vote of thanks to the meeting, regretted that the address, so able, perfect, and complete, appealing to their inner sense of right, had been addressed almost exclusively to pharmacists. They, as individuals, should take care to make it known. He had great confidence in the good sense of the public, but that good sense must be instructed.

Professor ATTFIELD, in reply to the vote, said he had deliberately obtruded himself on ground which might be thought more familiar to his audience than to himself, because he believed that the relations of pharmacy and the State would be more usefully put before the public from his position than from that of a pharmacist in practice.

The reading of the papers was then proceeded with.

SECOND REPORT ON THE DIFFERENCES BETWEEN THE ESSENTIAL OILS OF CINNAMON AND CASSIA.

By Alfred H. Jackson, B.Sc., M.P.S., F.C.S., Associate of the Owens College, Manchester.

In the first report it was shown that the relative density of cinnamon oil was 1.0097, whilst that of cassia was 1.0366; also that the specific refractive energy of cinnamon oil was .32102, whilst that of cassia was .28685.

Experiments were continued on the residue left after the removal of cinnamaldehyde, the principal constituent. After a laborious research, the author had to confess that he was not able to point out any substantial chemical differences between the two oils, or to hope for any such definite results as would justify the use of larger quantities of such expensive materials.

There was no discussion. Professor Attfield remarked that it was very discouraging to fail to obtain definite results after a laborious research. Still, the author's labours would make the road easier for his successors.

Mr. Greenish's paper was read by the Secretary, Mr. F. Baden

REPORT ON THE BITTER PRINCIPLES OF NERIUM ODORUM.

By H. G. Greenish, F.I.C.

THE author is a grantee of the British Pharmaceutical Conference, and reported progress made in the isolation of the bitter principles of the *Nerium odorum*, or sweet-oleander.

Dr. Dymock, of Bombay, had provided a supply of the root.

It was exhausted by treatment with water, and the bitter constituents separated by shaking with chloroform and purified by agitation with water made alkaline with NaOH .

The resulting yellow substance was separated by solution in warm spirit and crystallisation into a white crystalline body, and a yellow amorphous mass.

One of the substances—the crystalline one—is possibly identical with a crystalline substance, considered by the author to be a decomposition product of the bitter principles; the other—the amorphous—represents the remainder in a state of greater purity. A further report on this will be made, perhaps at the next Conference.

Professor ATTFIELD said he might explain that this was not Mr. Councillor Greenish nor Mr. Examiner Greenish, but the son of the one and the brother of the other. Two years ago Mr. Greenish published some investigations into the active principles of *Nerium odorum*, when he had obtained two bitter principles in an amorphous form. One of these he obtained in crystals, and the other in a purer condition. For this meeting would award him its thanks, coupled with the hope that he would continue his researches; and an expression of thanks to Dr. Dymock, of Bombay, for his ever-ready help in anything that tended towards pharmaceutical research.

After a question from Mr. W. A. H. Naylor,

Mr. Sydney Plowman read a paper by Messrs. Dunstan and Short, giving, as he went on, short comments on the bearing or meaning of the results obtained. This plan is very helpful to an intelligent application of a paper.

THE QUANTITATIVE SEPARATION OF STRYCHNINE AND BRUCINE.

By Wyndham R. Dunstan, Demonstrator of Chemistry, and F. W. Short, Assistant-Demonstrator of Chemistry, in the Laboratories of the Pharmaceutical Society.

No direct method for the separation of strychnine and brucine which gives concordant quantitative results has been known hitherto. An examination of the solubility of the salts of strychnine and brucine was therefore made, with a view of devising a direct method for the separation of the two alkaloids. Among the salts prepared were the ferrocyanides of strychnine and brucine, which were obtained in the first place by the double decomposition of the alkaloid sulphates and potassium ferrocyanide. These salts differed so considerably in their solubility that a full study was made of their properties and solubility under varying conditions, an account of which is reserved for the future.

After a series of experiments the following method was devised for the quantitative separation of the alkaloids. Any quantity less than 0.2 gramme of the mixed alkaloids is dissolved in about 10 cubic centimetres of a 5 per cent. (by volume) solution of sulphuric acid ($=0.5 \text{ c.c. H}_2\text{SO}_4$). The solution is diluted to about 175 c.c. with water, and then made up to 200 c.c. with a 5 per cent. solution of potassium ferrocyanide. The liquid is transferred to a beaker, and occasionally, and allowed to stand from three to six hours. The precipitate is filtered off and washed with water acidulated with sulphuric acid (about 0.25 per cent.), the washings are free from bitterness. As the precipitate is liable to alteration upon drying it is decomposed by the addition of a strong solution of ammonium hydrate, the filter washed with the same liquid, and finally with water, a sufficient quantity of which is used to extract the alkaloid from its solution in ammonium hydrate. The chloroformic solution is then evaporated, and the anhydrous strychnine weighed. From the filtrate and washings the brucine is extracted by chloroform after the addition of excess of ammonium hydrate; in ordinary practice, however, either the brucine or strychnine may be estimated by difference.

Professor ATTFIELD remarked that the authors had made a most advance in our knowledge of strychnine and brucine, and had reliable reactions for their separation. He called on Mr. Plowman to read the second paper by the same gentlemen.

REPORT UPON THE PHARMACEUTICAL PREPARATIONS OF NUX-VOMICA.—I. ON TINCTURE OF NUX-VOMICA.

By *Sydney R. Dunstan, Demonstrator of Chemistry, and E. W. Short, Assistant-Demonstrator of Chemistry, in the Laboratories of the Pharmaceutical Society.*

FOUR specimens of the tincture of nux-vomica of the British Pharmacopoeia were obtained from the principal manufacturers in London, and they were subjected to analysis. A tincture of nux-vomica is evaporated a resinous mass remains, which will be found to be only partially dissolved by chloroform, the greater portion remaining insoluble. It is practically impossible to wholly extract the alkaloid from this mass by the use of chloroform alone. There are two ways in which the alkaloid may be isolated from it. (1) By treatment with ammonium hydrate, which dissolves the resinous mass and allows the alkaloid to be easily extracted by one or two agitations with chloroform. The chloroformic solution is extracted by shaking with dilute sulphuric acid and the alkaloid extracted from this liquid after the addition of excess of ammonium hydrate by chloroform. Chloroform is then evaporated and the residue dried at 100°C. (2) By treatment with dilute sulphuric acid, which entirely dissolves the mass, and after the addition of ammonium hydrate the alkaloid can be extracted in the pure state by chloroform. These processes both yield finally the same result, as will be seen from the following figures, which represent the percentage of alkaloid found in a specimen of tincture analysed in both the above ways:—

Process 1	..	..	..	..	..	0.302 per cent.
Process 2	..	..	..	..	..	0.304 „

table of the results shows that the specific gravity of the tincture varied from 0.8552 to 0.8577; the percentage of total alkaloid from 0.360 to 0.124, but not always in harmony with the specific gravity. In the sample with specific gravity 0.8552 the percentage of total alkaloid was 0.36; where the percentage of alkaloid was 0.360 the specific gravity was 0.8450. Two other columns show the percentages of strychnine and brucine in the tincture, which by means correspond to specific gravity or total alkaloidal strength.

It will be seen from these results that the tinctures of nux-vomica now in commerce vary to a very considerable extent in alkaloidal strength. The strongest tincture containing nearly three times as much total alkaloid as the weakest. It will be at once conceded that the important feature in a typical tincture of nux-vomica is or should be uniformity in alkaloidal strength; the other constants, though doubtless valuable, are of secondary importance. It directly follows (1) that a standard of uniformity should be officially recognised; (2) that the pharmacist should be able to prepare and guarantee the tincture of standard strength. This accomplished, the pharmacist, having determined the amount of total alkaloid contained in the seeds from which the tincture is to be prepared, employs a sufficient quantity to produce by a process of complete exhaustion the standard tincture.

Professor ATTFIELD proposed a vote of thanks to the authors. They had attacked the tough subject of nux-vomica; had first devised an ingenious apparatus for extracting all the active principles, had next discovered a method for separating and separately estimating these principles, and were now applying their physical and chemical researches to the pharmaceutical preparations. This was valuable pharmaceutical service.

W. A. H. NAYLOR said it would be remembered that Mr. Siebold had read a paper on this subject before the Conference, and had suggested that the tincture of nux-vomica should be used in preparing the tincture. This suggestion was valuable. A process involving the assay of nux-vomica or the use of nux-vomica up to standard should not be speedily adopted. No standard had yet been fixed, and as this was probably the first time the alkaloids had been separated the physiological action of pure brucine was yet unknown. The variation in the strength of tincture of nux-vomica was due, first, to insufficiently minute division of the seeds, which was of very great importance, and, secondly, to overheating the seeds in the process of drying. He had seen this carried so far as to destroy the alkaloids.

F. BADEN BENDER said Mr. Siebold had decided that nux-vomica should yield 9 per cent. of extract. Mr. Siebold had found that the tinctures were three times stronger than the weakest—a conclusion confirmed by the authors by an entirely different method. Mr. Siebold had based his standards of comparison the bitterness and the opalescence produced on mixing with water. If the alkaloids were the only active ingredients in the tincture it would be much better to use them.

Mr. E. M. HOLMES said that the variation of the strength of tincture of nux-vomica was very important. Professor Bentley had once been nearly poisoned by taking a tincture stronger than he thought. The Bombay nux-vomica was nearly twice as strong as the other varieties, but it was almost impossible to obtain it regularly, and unmixed with the others.

Mr. TANNER said his experience of making the tincture from the extract of nux-vomica was unsatisfactory. A large quantity of spirit was needed to exhaust the seeds, there was much loss on evaporation to an extract, and the latter would not entirely redissolve in spirit owing to the separation of fixed oil. Further, the tincture thus made deposited after a time a brown resin.

Mr. CONROY remarked that it was strange to find that the specific gravity of the tinctures to a certain extent did not correspond with their strength. It seemed to indicate that rectified spirit was not the best menstruum, but that a weaker spirit softened the tissues more.

Mr. ABRAHAM said a weaker spirit was used formerly in English pharmacopoeias, and still is on the Continent. It was undoubtedly a better menstruum.

Mr. JACKSON said he had a note to the effect that a spirit of the sp. gr. 0.97 was a much better menstruum than that of the usual strength. Samples of hircine, alleged to be pure, were exhibited at the Vienna Pharmaceutical Exhibition, and it would be interesting to know how they were prepared.

Mr. WHITELY WILLIAMS said that Mr. Shenstone had come to the conclusion that no precipitation process for the separation of strychnine and hircine could be satisfactory. A very pure solution of alkaloid could be titrated with the iodide of potassium and mercury precipitant, but the presence of peptones and other organic matters prevented this.

Mr. REYNOLDS congratulated Dr. Attfield on being the chief of the school which sent in this valuable contribution. As in many other cases the bye-products seemed more valuable than the staples. It was a pity that there were not more schools where such bye-products were produced. The inclusion of pharmacy in the curriculum of Owens College, Manchester, seemed to promise that the number would be increased.

Mr. PLOWMAN replied to some remarks caused by misapprehension of the author's meaning.

Professor ATTFIELD thanked Mr. Reynolds for his allusion. The Council of the Pharmaceutical Society had always encouraged such researches, and the School of Pharmacy Students' Association had done good service in promoting original work. He was proud to find men like Stanford, Jackson, Naylor, Greenish, Duncan, and Short doing work which commended itself to the Conference.

Professor Quinlan then read his two papers in a style which loses all its sparkle on condensation. Our report is as little like the original as dried herbs falling to powder are like the living plants.

THE PRESERVATION OF MEDICINAL HERBS BY ENSILAGE.

By *F. J. B. Quinlan, M.D., M.R.I.A., Professor of Materia Medica, Pharmacology, and Therapeutics, Catholic University; Examiner in the same, Royal University of Ireland.*

BOTH the practising and pharmaceutical branches of the medical profession are agreed as to the advantages of fresh medicinal herbs over the same substances in a dried condition, and a simple process which would supply fresh herbs all the year round has long been a desideratum. The physician complains of the inferior physiological activity of the tincture made from the dried leaves: for example, tincture of hyoscyamus made from the fresh leaves will, if dropped into the eye, cause marked dilation of the pupil; whereas the tincture made from the dried leaves causes no such reaction. He knew an instance where such tincture was returned with a query whether it was not tincture of belladonna. The late Mr. Donovan, of Dublin, had a tincture of digitalis which was much relied on. In making this tincture he brought the alcohol to where the foxglove was growing, took the plant from the ground, bruised it, and plunged it in the spirit. He maintained that tinctures, to use his own words, "should be made from the live plant." The author doubted if ethylic alcohol extracted the virtues of all herbs; said that the manufacture of black drop had been revived in Dublin; wished that glycerine alcohol had been ordered for the preservation of succus; and stated that green extracts strictly P.B. would not keep through the winter. A supply of herbs preserved in a practically fresh condition throughout the year would therefore be very valuable.

Various silos were prepared in the pharmaceutical laboratory of Dr. John Evans, Apothecary to the Queen and to the Prince of Wales, with whom the author was in telephonic communication. The herbs in a perfectly fresh state were

bruised to a pulp in a mortar, and placed in glass bottles, well tamped down; the stopper was forced in so as to exclude every particle of air, and the top encased in beeswax softened by heat. The bottles were buried in the ground at a depth of three feet; and so treated, belladonna, conium, and other herbs kept for four months perfectly sweet and fit for pharmaceutical purposes. The bottled herbs would probably keep for six or even eight months, or perhaps longer. Now and then a bottle will fail from imperfect manipulation; but the failure is at once rendered evident by the spots of mildew appearing in the vegetable.

The factors of the decomposition of vegetables were the putrefactive germs contained in the air, the actinic rays of the sun, heat, and moisture; and their comparative influence was shown by some experiments.

Ensilage is indispensable for medicinal herbs which must be used in the fresh state, such as *Galium Aparine*, which is now much employed as a dressing for ulcers and cancers. It is bruised fresh, made into a kind of poultice, and placed upon the sore.

An ensilage bottle once opened, like a bottle of claret, must immediately be made use of.

The samples of siloed drugs shown had, he regretted to say, been taken out of the ground on Sunday.

The PRESIDENT remarked that this paper had raised several debateable points—dried herbs, ethics of substitution, variation of tinctures, and the best menstruum for them; in fact, it was boiling over with original excellence. He thought the discussion must be kept closely to the subject.

Mr. EGIN said the suggested method might be very useful. But the question of temperature was immensely important pharmaceutically. From elaborate agricultural experiments it had been ascertained that unless the temperature of every part of a silo was raised by fermentation above 50° C., which sterilised the germs in the included air, the whole process was a failure. Air filtered from germs might be admitted; exposure to sunlight seemed of little importance: the essential point was the uniform elevation of temperature. This alone was sufficient to prejudice the odours and delicate principles of some drugs.

Mr. SYMES thought the process could hardly be described as ensilage. In the latter the presence of air and development of fermentation were essential. He suggested that one bottle should be placed under an air pump with means of replacing the stopper. He thought that burying had no advantage over keeping in a cool dark place.

Mr. STANFORD remarked that agricultural ensilage distinctly altered the flavour and character of the vegetable substance, and the right medicinal character of the herbs would be modified. Siloed herbs were as different from fresh as sauer kraut from cabbage.

Mr. FLOWMAN said that although the subject was wide of the discussion, he would be glad to know if Dr. Quinlan had personal experience of the mydriatic action of tincture of the fresh leaves of hyoscyamus. It was difficult to believe that this power could be destroyed by careful drying.

Mr. MASON asked if the same lot of leaves was used for making the tincture from the fresh, and afterwards from the dried, leaves.

Mr. WILLMOTT said he had found a temperature higher than that mentioned by Mr. Ekin required to be continued for some time to destroy the germs.

Dr. QUINLAN, in reply, said he had merely wished to ventilate the subject, and to have the advantage and the practical suggestions of the Conference to enable him to carry out a further series of experiments. He had witnessed the operations of ensilage in Belgium, where, after tamping the vegetable material in a pit, a trier tube was pushed into the mass, and the temperature was taken at intervals in it. When a certain temperature was reached they knew that the silo was "done," and closed it in. Mr. Symes' idea was valuable, and should be carried out. Mr. Stanford's question he could not even approach. It touched the keystone of the arch, and if the keystone dropped out the arch would go. If it should go in Ireland he would be the first to report it. As regards the tinctures of hyoscyamus, both samples were from Dr. Evans' establishment, but he could not give their history more fully than he had done. He thought it probable that some medicinal herbs would be found to silo much better than others.

THE MULLEIN PLANT.

By F. J. B. Quinlan, M.D., M.R.I.A.

THIS drug in the early stages of pulmonary consumption has a distinct weight-increasing and curative power, similar to that of cod-liver oil or of Russian koumiss; and is superior to either in the point of view of comfort to the patient. The species used was the great mullein, the *Verbascum thapsus* of the botanist, and the "cuineal mhuire" of the ancient Irish medical writers. In Ireland it has been always carefully cultivated, and in many places upon a very large scale, in obedience to a steady demand by phthisical

sufferers. One grower has twelve acres of it. It is in most of the medical establishments in Dublin throughout Ireland, and it is seldom that you will find an Irish newspaper in whose advertising columns it is not offered. The only official preparations of it are the fluid extract of the leaves and the same of the root.

The old Irish method of administering it was 4 oz. of the fresh leaves, or a corresponding quantity of the dry, and place them in a pint of fresh cow's milk, now boiled for ten minutes, strained, a little sugar, and the mullein milk drunk while still warm. This is the best method. The superiority of the fresh is very marked; and the dose ought to be taken three or four times a day. When the leaves are not available the next best resource is the juice fortified with a little glycerine or fluid extract of the leaves. In cases where much milk decoction is found to be heavy, it is necessary to first peptonise the milk with pancreatic fluid and a pinch of sodium bicarbonate. The mullein decoction with peptonised milk digests at once, and the slight bitterness of the peptone is completely covered by the taste of the mullein. In advanced cases of consumption the mullein, although powerless to cure, relieves the cough and the expectoration. Young foxglove leaves may be mistaken for the mullein.

Mr. HOLMES remarked that the leaves of the specimen exhibited were less woolly than usual.

Mr. MASON said that they still had to learn that some of the remedies were really new old medicines.

Mr. CONROY asked if the cultivated mullein lost any of its therapeutic value, and if the milk and stout might not be credited with increasing power.

Mr. WYATT said he had had a specimen of the mullein in his garden, and had to exercise extraordinary vigilance to save it from being stolen. It went at last. He found that the Irish population prize it very highly, and were always legging for his plant. An Irish woman said to him, "It was not such an ugly plant after all; it always had a bright baby at the top of it." There was, in fact, always a single open flower round the spike.

Mr. BORLAND remarked that Dr. James' "Dispensatory," recommended the mullein for almost the same diseases it was now used, though not as a substitute for cod-liver oil, which was then unknown.

Mr. WILLMOTT asked where the mullein could be obtained in form could be recommended for hospital use.

Mr. ATKINS asked if the plant were a popular remedy in Ireland. The idea of investigating popular remedies was suggested at the Conference.

Professor QUINLAN, in reply, said the milk and stout objection had been raised over and over again, but had been disproved by special experiments. The use of the plant had been kept alive by the poor Irish. The plant was too large to be met by the wild plant, and the price was 3/4 a plant. The only good preparation was the decoction. Patients disliked the decoction in water.

When the Conference assembled on Wednesday morning Professor Atfield announced the death of John Henry Atherton, local secretary to the Conference at Nottingham and main organiser of the first Pharmaceutical Exhibition.

Mr. Naylor then gave the leading points of his paper.

ADDITIONAL NOTES ON THE BITTER PRINCIPLE OF HYMENODICTYON EXCELSUM.

By W. A. H. Naylor, F.C.S.

IN continuation of his previous researches the author has now prepared larger quantities of the alkaloid he had discovered in the dried bark.

The conclusion to be drawn from his results appears to be that the bitterness of the dried bark of *Hymenodictyon excelsum* is due in part, if not in the main, to the presence of an alkaloid whose composition is represented by the empirical formula $C_{21}H_{10}N_3$. In part, too, its bitterness may be due to the neutral principle having the composition $C_{22}H_{13}O_{10}$, or to a substance of which it may be a product of decomposition.

Professor ATFIELD hoped that the salts which refused to crystallise would consider their position and succumb to the author's coaxing.

Mr. DOTT, Mr. WHITELEY WILLIAMS, and Mr. MOSS asked questions.

Mr. HOLMES asked if the author's results threw any light on the

of quinine, as both alkaloids were obtained from plants of the natural order.

Mr. MOR briefly replied. Most of the questions were answered by him in the full text of the paper.

EXPERIMENTAL REMARKS CONCERNING THE OINTMENT BASES.

By W. Willmott.

Mr. WILLMOTT read an abstract of his paper: There are, perhaps, no remedies, whether external or internal, which, pharmaceutically, will better repay any extra time or attention devoted to them than ointments; and yet practically there is none which, until within a comparatively recent date, have been so systematically neglected.

The special points in a properly prepared unguent are—colour, consistence, smoothness, neutrality, and freedom from liability to rancidity.

The author's experiments were chiefly directed to noting the liability to rancidity of various bases and ointments. Lard prepared in various ways: (1) simple melting and straining; (2) washing and straining, as P. B.; (3) Mr. Ewen Smith's, washing and filtering. Ewen's lard is invariably washed, and is a white, smooth, and most excellent duct. Samples of bladder-lard, Ewen's pharmaceutical and the same filtered turned rancid within eighteen months. Ewen's benzoated within five years; flare melted and strained, melted and filtered, remained good after thirteen months; washed and strained P. B. was rancid; washed and filtered was slightly rancid after the same period. Experiments were then made with "flare" prepared in the last four cases. Ung. hyd. ox. rub., plumb. carb., and zinc were prepared and examined at one, three, and seven months. Each sample of lard was thus observed at five times. The ointment made with flare melted and strained was found good on five occasions; each of the others only once. Simple melting and straining is therefore the best process for the preparation of lard.

A mixture of oil and wax can be prepared of any consistence. Oil with white wax is liable to rancidity; oil with yellow wax makes a very permanent base. Sixteen cerate and ointments were prepared with various proportions of white and yellow wax, with olive or almond oil, lard, spermaceti, and vaseline. Seven that contained white wax were good at the end of two years, but rancid at the end of four years. The four mixtures containing yellow wax were still good after the lapse of four years: a decisive proof of the superiority of yellow wax. The colour of the latter remains unimpaired after many years.

The mineral hydrocarbons are recommended on the ground that they are free from liability to oxidation. One important drawback to vaseline, to which preference has heretofore been given, is its liability to develop a strong petroleum odour which is scarcely less objectionable than actual acidity. Melted with paraffin, white wax, or spermaceti, especially with paraffin, or in the presence of carbonyl or acetate of lead, this odour is strongly developed. In combination, however, with yellow wax it is prevented. On the other hand, the palm must be awarded to vaseline for the retention or preservation of its natural colour.

Experiments with vaseline, fossiline, white ozokerine, and ceresine cannot be summarised. Of mixtures of vaseline with paraffin, white and yellow wax and cetaceum, that with yellow wax seems most permanent. All the mineral preparations are softer than is liked. They cannot be said to improve the appearance of the pharmacist's stock. Not infrequently they produce granular, greenish-looking oily deposits, which have nothing inviting about them. Experiments with ung. simp., ung. plumbi acet., carb., and hyd. ox. rub., with various mixtures of vaseline and wax, white ozokerine and wax, and olive oil were after eight months decisive, so far as they went, in favour of ozokerine.

The most important of the seven tables given in the paper was that detailing the condition of (1) ung. gallæ, (2) ung. hyd. ox. rub., (3) ung. plumbi acet., (4) ung. plumbi carb., (5) ung. sulph., and (6) ung. zinci, after one, six, fourteen, twenty-four, and forty-eight months had elapsed, each ointment being made with four specimens of lard (ordinary, pharmaceutical, filtered, and benzoated), oil and wax

(oil with white wax, with yellow wax, and with white wax and vaseline), and with petroleum jelly. Each basis was, therefore, under observation thirty times, five times for each ointment. Vaseline was perfect at the end of four years in three cases (1, 5, and 6), and at the end of two years in another (2); oil and yellow wax was perfect at the end of four years in No. 1 only, and at the end of two years in 3, 5, and 6; benzoated lard was perfect at the end of four years in 1 and 6, and at the end of two years in No. 5. The other bases were much inferior in permanence. Counting as one each time an ointment made with the base was found good, vaseline marks twenty-one, oil and yellow wax twenty, and benzoated lard eighteen, the other mixtures of oil and white wax mark only nine, and the lards only four. The change noted in vaseline was the development of a rank odour. Mixtures of petroleum residues with lard and oil are by no means permanent. Directions were given for the manufacture of diachylon ointment with vaseline, Lister's boric ointment with paraffin, and for making eitrine ointment.

Professor ATFIELD thought the paper would lead to a very useful discussion; the summary was very clear, and other useful points would be found on reading the paper.

Mr. JOHN WILLIAMS asked if the ordinary white wax of commerce had been used. It was very different from true bleached wax, as it contained two parts of spermaceti to one of wax.

Mr. WILLMOTT explained that he had used the ordinary pharmaceutical white wax that his experiments might represent the usual run of pharmacy.

Mr. WARD, of Leeds, asked if experiments had been made to see if the various hydrocarbons had the same chemical composition.

Mr. WALTER HILLS asked if the author had made any experiments on bleaching yellow wax, and if an unpleasant odour was essential to white wax. A pleasant-smelling white wax would be very useful.

Mr. MOSS said that some of the author's conclusions with regard to vaseline combated some he had reached by his own experiments. Some years ago he had made all the ointments of the Pharmacopœia with vaseline, and in no case had a petroleum odour appeared. It was possible that vaseline varied at times. Vaseline and ozokerine were simply hydrocarbons, and their great physical differences could only be accounted for by their different geographical source.

Mr. NAYLOR asked how the initial stage of rancidity had been ascertained. His own experiments with vaseline confirmed those of Mr. Moss, but they were made nearly at the same time and with the same sample. He had examined five or six of these petroleum bases, and found that they all contained hydrocarbons of the same series, though of different parts of the series.

Mr. SYMES could, to some extent, confirm the author's results with vaseline. A sample he had exposed on his counter some years ago developed a strong acid but not petroleum odour. The genuineness of the sample was undoubted. He found that these hydrocarbons, mixed with lard, did tend to preserve them. Two classes were in the market—one obtained in the preparation of petroleum, which never crystallised, the other made by dissolving solid paraffin in lubricating oil. He hoped to have heard the results of experiments on the newly-suggested substitute for ointments—a compound of gelatine with a little glycerine. It answered admirably for active principles like chrysarobin.

Mr. PICKARD asked if there were any grounds for the presumption that white vaseline is purer than yellow.

Mr. FRASER said that true bleached wax was known in Scotland as dentists' wax, and was constantly used; it could be obtained from Barclay, of Regent Street.

Mr. MASON remarked that block wax was known in the market as Madras wax, was imported in its natural state, and needed no bleaching. For furniture polish it was absolutely necessary to have this kind, as bleached wax would not thicken. Complaints had often been made that vaseline stains the skin and linen. This does not always happen; but if a vaseline pomade is used, the colouring-matter of the hair seems to be extracted and stains the pillows. A lady in Paris with beautiful white hair used vaseline, which turned it a dirty yellow.

Mr. CONROY said that, with regard to lard, the author's experience was entirely different from his own. He was in the habit of preparing very large quantities by filtration, with excellent results. The lard thus prepared would keep eighteen months, the careful filtration separating the decomposable constituents. By allowing lard to settle in an enamelled pan the water soon separates, and at 120° lard runs very rapidly through a fine filter, and even through paper if it be kept from the sides of the funnel. He had never noticed the petroleum odour in vaseline, though he had made and kept many ointments. But all hydrocarbons developed a rancid smell, more quickly if exposed to strong sunlight. One curious fact was that the hydrocarbon jellies often produced inflammation of tender skins. He had seen and heard of several cases.

Mr. HOLMES had received from Mr. Jamie, of Sumatra, specimens of a fat produced from seeds which were not recognised at either Kew or the

British Museum, which never turns rancid, and makes a good ointment with olive oil.

Mr. ABRAHAM remarked that pure white wax was not used only in Scotland.

Mr. FRASER protested that he never meant to imply that. He was often mis-read. (Laughter.)

Mr. WARD asked if English or foreign yellow wax had been used in the experiments.

Mr. WOOLLEY said the whole question of the use of wax in ointment-making needed investigation. The purity of much of the Madras wax was not above suspicion. If the author had used white wax in round flat cakes his results would need correction.

Mr. WHITELEY WILLIAMS remarked on the excellent keeping properties of kokum butter.

Mr. WILLMOTT briefly replied.

Professor ATTFIELD suggested that there was room for research on the material separated from fats by filtration.

NOTE ON THE PROCESSES OF THE BRITISH AND UNITED STATES PHARMACOPOEIAS FOR THE DETERMINATION OF HYDROCYANIC ACID.

By Louis Siebold.

THE two processes differed in two essential points. In the first place, the conversion of the acid into a cyanide was effected in the B.P. process by means of sodium hydrate, while the U.S.P. directed the use of magnesia suspended in water. According to the B.P. the decinormal solution of silver nitrate was to be added until a permanent precipitate of silver cyanide just began to form, or in other words, until the whole of the sodium cyanide had been converted into the soluble double salt NaAgCy_2 . The process of the United States Pharmacopoeia directed the addition of the silver nitrate solution until the soluble double cyanide (in this case MgAg_2Cy_2) was completely decomposed, or until the whole of the cyanogen present had been precipitated as silver cyanide. As this process was conducted in the presence of a small quantity of neutral potassium chromate, the end of the reaction was distinctly indicated by a red coloration, due to the formation of silver chromate. This process required exactly twice as much silver nitrate solution as that of the British Pharmacopoeia; but, strange to say, this fact seemed to have been overlooked by the compilers of the United States Pharmacopoeia. This serious error had been already pointed out by Mr. R. A. Cripps, in a paper read before the School of Pharmacy Students' Association. The process required a larger quantity of silver solution, which seemed an advantage rather than otherwise, for the larger the volume of a test solution required for the analysis of the same weight of substance, the greater must be the accuracy in the result, provided the method itself was free from inherent defects and was not inferior in the delicacy of its reactions. This method, if properly conducted, was thoroughly reliable, and certainly in no wise inferior to the process commonly used in this country. In the hands of inexperienced manipulators, it appeared the preferable one of the two. It required two precautions.

(1) Care must be taken that a sufficient amount of magnesia be used, for otherwise the results would be too low and entirely untrustworthy. An excess of magnesia, however, did not apparently affect the accuracy of the result.

(2) The magnesia used must be free from chlorides, and the hydrocyanic acid free from hydrochloric acid; otherwise the results would be too high.

Mr. SIEBOLD had noticed a powerful action of prussic acid on carbonates in the presence of silver nitrate, and thought the process might be used in the estimation of the alkaline earths perhaps in the presence of alkalis.

THE PRESIDENT said that Mr. Cripps had intended to pursue his researches, but might think he need not do so, as the matter was already in such excellent hands.

Mr. JOHN WILLIAMS said he had for many years paid attention to the question. He had always considered Liebig's and the Pharmacopoeia test a great advance because hydrochloric acid does not interfere with it. He thought the new United States Pharmacopoeia process was a distinct retrogression. The prussic acid of commerce did and must contain a preservative, which was generally hydrochloric acid. Otherwise it would continue to change, because there was ammonia in the air and alkali in the glass. The British Pharmacopoeia test was, therefore, perfect, so far as it went. A preservative was absolutely necessary, and hydrochloric acid was better than glycerine.

Mr. DOTT said that in estimating hydrochloric in the presence of prussic acid it was not necessary to boil the latter, as silver chloride was soluble in ammonia, while silver cyanide was not.

Mr. NAYLOR had abandoned Liebig's process for Hanny solution of mercuric chloride was used. The only objection was the instability of the volumetric solution.

Mr. SCHACHT systematically tested prussic acid before using it in dispensing-bottle, and much preferred the P.B. process. A minute parcel of a drop was always enough to show the end of the reaction. Chlorides it was not so; the deposition of the precipitate requires the though the method might be as correct. He had always in careful keep his solution alkaline.

Mr. TANNER could corroborate Mr. Schacht. He had always found the difficulty in determining the end of the reaction of chlor with silver nitrate with chromate as indicator. It seemed to require time, with Liebig's method the end was always sharply defined.

Mr. ABRAHAM had found that excess of alkali within a few minutes affected the accuracy of Liebig's method.

Mr. WHITELEY WILLIAMS said that alkaline bicarbonates might be in enormous excess without injurious effect.

Mr. SYMES thought that if Messrs. Tanner and Abraham had started only a small excess of alkali their results would have been different.

Mr. SIEBOLD, in reply, said he fully agreed with Mr. Williams, and would not eliminate the B.P. process for that given in the U.S. Pharmacopoeia. His object was simply to examine critically their relative accuracy. He preferred the British process, but thought that use of a decinormal quantity of decinormal solution was an advantage for the American process. With regard to Liebig's process, although excess of alkali did not result, it was only to a small and inappreciable extent. The difficulty in observing the indication of chromates with silver solution might be due to varying sensibility of the eye to colour. It might be well to use different methods to check results, especially if the same volumetric solution could be used. It might be tried once with soda and once with magnesia. Excess of soda was harmful, while magnesia could not be

IODINE IN COD-LIVER OIL.

By Edward C. C. Stanford, F.C.S.

"It is proposed to verify the statement in Garrod's 'Medical' that cod-liver oil contains 0.06 per cent of iodine. See 'Blue List.'"

If this statement were true, cod-liver oil would be one of the richest sources of iodine with which we are acquainted. The average yield from laminaria drift on the lap seal is 0.025 per cent; but many thousands of tons of seaweed have been made into kelp and worked for iodine which has yielded not more than 0.005 per cent, and some even less than this.

Most of the published analyses of cod-liver oil are too high in the amount of iodine found. The exceptions are the results obtained by Mr. Mitchell Bird, which are nearer the truth. The method of analysis adopted is the same as used for kelp.

The specimens of cod-liver oil experimented with were obtained from their former President, Mr. Reynolds; 5 grains of each were taken, saponified with 1.00 grain caustic soda, pure and free from iodine, then carried in a large porcelain crucible; the resulting charcoal was heated with hot water and made up to 5,000 grains measure. Tenth of this, or 500 grains, was found quite sufficient to detect the presence of iodine and to estimate it. Three experiments were made, taking 500 grains, 2,500 grains, and 1,000 grains respectively, with pretty concordant results.

The following six specimens were selected:—

(1) Cod-liver oil, pale; (2) Norway; (3) manufactured by Carr & Sons, Berwick-on-Tweed; (4) English foundland; (5) light brown.

The mean proportions of iodine found were per cent:—

(1) 0.000410; (2) 0.000434; (3) 0.000276; (4) 0.000151; (5) 0.000315; (6) 0.000360. Mean percentage of iodine 0.000322.

The herring contains four times the amount of iodine contained in the codfish, and more than in any of the samples of cod-liver oil; if, therefore, the iodine in medicinal element, Scotch herring salted should be recommended; it is very cheap at present.

The subject was becoming interesting, and, indeed, leading to the iodine-maker.

THE PRESIDENT said it was peculiarly satisfactory that so much authority as Mr. Stanford had taken up this question.

Mr. EWIN remarked that with regard to the starch test for iodine the author had somewhat condemned, his own experiments and the author's were not necessarily antagonistic. His had been detection of minute quantities of nitrites in potable waters, which had been found an important element.

Mr. STANFORD, in reply, said that in testing for nitrites starch was very delicate, but not in the analysis of kelp.

ON THE TREES YIELDING BENZOIN.

By E. M. Holmes, F.L.S.

oin which enters into English commerce includes varieties, named respectively Sumatra, Palembang, and Siam benzoïn. These exhibit certain characteristics by which they are easily recognised, and they are probably derived from three distinct botanical sources of Sumatra benzoïn was determined by Dryander, but the trees which yield the other have as yet never been identified with certainty. The state of our knowledge of Siam benzoïn being thus imperfect, he had written to Mr. R. Jamie, of Singapore, to receive from him a box of specimens for the use of this Society, containing amongst other interesting donations sections of the trunk of the Siam tree, and herbarium specimens of the leaves, but lately neither flowers nor fruit; also specimens of the Sumatra benzoïn tree with leaves, flowers, and fruit. In addition to these specimens he has contributed some interesting information.

The oil is a considerable article of traffic, in fact a fetching a good price in the Bangkok market. It is used generally for fumigating sick-rooms and making incense. Large quantities generally find their way to being brought overland on oxen to Sawaryaloke, and other Siamese provinces, and are exported to Europe by several mercantile firms.

Some beautiful specimens were exhibited and the distinction between the two plants were pointed out.

There was no discussion.

The President drew the attention of the meeting to a specimen of yellow wax. A cake of inferior quality had been neatly coated with orange yellow wax.

At the adjournment for luncheon the members of the Conference were photographed in a group.

SEAME OIL. REPORT ON ITS SUITABILITY FOR PHARMACEUTICAL PURPOSES.

By Michael Conroy, F.C.S.

It was found to be a reliable source. It was a pale, yellow-coloured oil of sp. gr. .921, possessing a bland, tallow-like taste, with neutral reaction. Concentrated sulphuric acid converted it into a deep brownish-red jelly. The addition of 2 per cent. of a cooled mixture, in equal parts, of strong nitric and sulphuric acids caused it to acquire a deep-green colour, rapidly changing into deep brown and to other well-known tests it answered equally satisfactorily.

From experiments which were detailed it was very evident that this oil could not replace olive for the chief pharmaceutical uses, since plaster made with it would not be sufficiently portable, either in the form of rolls or for use; neither can it satisfactorily be used for liniment, because of its tendency to separate. Liniment of ammonia made with it is a little thinner than those of olive, these defects are undoubtedly due to the large amount of olein contained in this oil, and consequently a portion of the more solid glycerides; and it is singular that these defects are what chiefly recommended the oil to the authors of the "Pharmacographia," namely the "larger proportion of olein and consequent tendency to solidify."

When, however, no chemical combination takes place, and we apply a bland sweet oil, possessing good keeping properties, is required as an ointment basis, perhaps no oil could be chosen, and on this account the author considers it much more suitable as a substitute for almond oil in the preparation of ointments. Samples of the principal oils contained in the British Pharmacopœia had been prepared and were on the table, which were quite equal in every respect to those prepared with almond oil.

SEAME OIL: ITS SUITABILITY FOR PHARMACEUTICAL PURPOSES.

By Thomas Maben, Pharmaceutical Chemist.

He finds that sesame oil is very suitable for preparing the plasters of the British Pharmacopœia. Lead plaster is more adhesive than that prepared from olive oil

and does not become so friable, but a larger proportion of lead oxide is required. Adhesive plaster requires less resin and is consequently less irritating to inflamed surfaces, and belladonna and other plasters which are frequently kept ready spread do not crack so readily when lead plaster made from sesame oil is the basis.

With the exception of ungt. hydrargyri nitratis, the ointments of the British Pharmacopœia can also be very successfully prepared by substituting sesame oil for olive and almond oils. In the case of the exception referred to a peculiar principle, common to most seed oils, has a reducing action on the mercurial salts, with the result that the ointment becomes discoloured and unfit for use in the course of a few weeks.

These two papers were read together that the discussion might be taken on both.

The President remarked that Mr. Conroy's objection might be met by Mr. Maben's well-taken suggestion to use more base.

Mr. WILMOTT suggested that more time should be allowed in experiments with ointments to see if the results remained the same.

Mr. TANNER had found that lead plaster made with sesame oil was too soft, excessively sticky, and wanted firmness. Its odour was very disagreeable, entirely different from that of lead plaster made with olive oil. When spread, rancidity appeared in a very few days. Large batches had become so hot in twenty-four hours that it had seemed dangerous to pack it. Citrine ointment made with it was orange coloured changing to red. In ammonia liniment it seemed an improvement.

Mr. CONROY had experimented with larger quantities of lead oxide, but the result was the same, and was apparently due to want of palmitic acid. The rancidity mentioned by Mr. Tanner was probably due to want of consistency and the red colour to the presence of the seed oil. Seed oils turned red with nitric acid.

THE STATE OF COMBINATION IN WHICH MORPHIA EXISTS IN OPIUM.

By D. B. Dott.

THE facts which render it almost certain that morphia exists in opium both as sulphate and meconate are briefly as follows:—

1st. An aqueous extract of opium contains sulphuric acid in sufficient quantity to combine with the whole of the morphia.

2nd. The same extract contains meconic acid in quantity insufficient to convert all the morphia into meconate.

3rd. The extract contains inorganic and organic bases, with which the sulphuric acid will unite in preference to the morphia; and the remainder of the sulphuric acid will not suffice to combine with all the morphia.

Seeing then that the sulphuric acid which is free to combine with the morphia is insufficient to unite with the whole of the alkaloid, it is evident that part of the morphia must exist as meconate.

There was no discussion.

SWEET SPIRIT OF NITRE.

By Alfred Clay Abraham, F.C.S.

AFTER mentioning some points in the history of the preparation, the author proceeded to discuss the Pharmacopœia process devised by Professor Redwood. He believed that the moderate action and constant temperature was due, not to the formation of nitrous acid, but rather to the action of the sulphuric acid upon nitrate of copper; or to the increase of the boiling-point by the admixture of sulphuric acid.

Nitrate of copper was first prepared with excess of acid and then distilled with sulphuric acid and rectified spirit.

The product was 4 fl. oz. more than the British Pharmacopœia directs, and 3 to 4 per cent. of ethereal fluid separated on application of the Pharmacopœia test.

Another experiment was tried, with a smaller quantity of nitric acid, equal to the B.P. quantity. The product separated nothing with solutions of chloride of calcium. No. 1 had only one advantage over the Pharmacopœia, viz, the greater regularity of its distillation, and required the use of much more copper, and twice as much nitric acid. Some base was sought which would be cheap, constant in composition, easily decomposed at the required temperature by the sulphuric acid, and exist either in the state of nitrate in commerce, or in that of some compound which could be converted into a nitrate without loss of nitric acid.

Calcium was tried, calcium carbonate being used in place of copper in the Pharmacopœial process.

The distillation proceeded with great regularity from the beginning to the end; the product was 86½ fl. oz. of a liquid of specific gravity 8153 at 60° F., and separated 3 to 4 per cent. by the chloride of calcium test.

The first 82½ fl. oz. were tested and found only to separate about 1 per cent., but the remaining 4 fl. oz. of product raised it to the strength named.

Another lot was tried with a third less spirit added to the sulphuric acid. The product was 87½ fl. oz., sp. gr. 8163, and 3 to 4 per cent. of ethereal fluid separated. The distillation occupied less than an hour.

To test the idea that the sulphuric acid might so raise the boiling-point of the mixture of nitric acid and spirit as to reach the temperature necessary for the formation of the nitrate of ethyl, another experiment was tried with Pharmacopœial proportions, omitting the copper. The product, perhaps through some neglect, was not satisfactory.

Samples made by the B.P. process, and by the same with the substitution of chalk for copper, have been kept seven months without deterioration in bottles, *not full*, exposed to bright light in a warm room, and, moreover, have had a number of small samples taken from them, as would be the case in dispensing. The advantages of the process suggested are:—(1) The product is 5 per cent. greater; (2) the cost is less; (3) the process is more analogous to the old one; (4) occupies much less time; (5) the distillation is much more regular; (6) the proportion to be distilled is one-third less. Advantages 4, 5, and 6 recommend it as a manufacturing process.

One thing at least seems perfectly clear, viz., that the success of the P.B. process is not due to the formation of nitrous acid, but to the increased boiling-point resulting from the presence of the sulphuric acid, which is gradually eliminated as the distillation proceeds by its action upon the copper, or upon nitrate of copper, and thus maintains a proper equilibrium.

The PRESIDENT hoped the discussion would be condensed, bearing in mind that at present it was not known whether in sweet spirit of nitre we had a solution of nitrous ether or of aldehyde in alcohol, or of other things or a combination. Its properties have never been investigated by therapeutists. No tests at present devised gave the needed information. We could prove the presence of a nitrite of something and of aldehyde, but neither could be estimated quantitatively. A process had recently been published for estimating nitrous ether by liberating nitric oxide gas and measuring it. If it yielded good results, it might enable us to talk more definitely about the chameleon of pharmacy.

Mr. WILLIAMS thought there was no possibility of getting a definite result by mixing several things in a retort and then distilling something out of it. He had condensed 10 per cent. pure nitrous ether in rectified spirit, and the result was not sweet spirit of nitre. He had condensed 10 per cent. of aldehyde in the same way, and again it was not sweet spirit of nitre. He had mixed the two, and neither of the three had any resemblance to sweet spirit of nitre. He had thus proved what it was not. Again, aldehyde is so objectionable that it would spoil any sweet spirit of nitre in which it existed to an appreciable extent. But there had been recently introduced into therapeutical use a polymeride of aldehyde, called paraldehyde. In it three volumes of alcohol had been condensed into one. It had very powerful medicinal properties, and promised to be very useful. Its flavour was so much like that of sweet spirit of nitre that he was convinced that this, mixed with nitrous ether, was the hidden thing so long sought after. When aldehyde was brought into contact with small quantities of acid, by some action not chemical, it is changed into paraldehyde. The experiment goes on very beautifully in a flask, and was very interesting. The very volatile, offensive aldehyde could be seen changing into the sweet paraldehyde, boiling at 116° F. Acetic acid and acetone were also formed.

Mr. SYMES said that Mr. Williams' remarks were very suggestive. But there was a practical consideration which affected them all. If the best knowledge is so vague, it is very unfair that members of the Conference should have been mulcted for variations in a thing which could never be produced twice alike.

The PRESIDENT remarked that the cases referred to had been decided not on the B.P., but on the permanganate test.

Mr. MOSS said that the Committee on the revision of the U.S. Pharmacopœia seemed to have adopted a test, and then to have devised a process to obtain something that would stand the test, but without having any definite ideas on the subject.

Mr. NAYLOR thought it was very desirable that in the coming Pharmacopœia Dr. Dupré's test should be adopted. A make of spirits of nitrous ether could be obtained yielding 3 per cent. by this process.

Mr. WHITELEY WILLIAMS said that a considerable proportion of the

things giving the nitrous reaction were not ethyl nitrite, but nitric aldehydes.

Mr. DORT said that an Edinburgh professor had traced the action of sp. eth. nit. to the nitrous constituent in the compound.

Mr. ABRAHAM, in reply, said that he was extremely pleased to hear Mr. Williams' remarks. A week before he had in private conversation suggested the presence of paraldehyde in sweet spirit of nitre. Its action was not sedative, like paraldehyde, but direct question if it did not act by the liberation of nitric acid.

AN EXAMINATION OF SOME SAMPLES OF PITCH AND ASPHALT.

By E. Davies, F.I.C., F.C.S.

VERY little information could be found in books with reference to either pitch or asphalt. The author, therefore, collected samples of all kinds of pitch and asphalt available. No attempt was made to analyse the organic matter in these varied products. They were no doubt mixtures of great complexity, and, so far as manufactured pitch was concerned, of variable composition, according to the method used in their manufacture. As the object was mainly the identification of the various commercial articles, only the ash, sulphur, and the amount soluble in petroleum spirit were determined. The last of these determinations did not admit of very great precision. In almost all the samples there is a substance highly fluorescent, and very slightly soluble in petroleum spirit, to completely remove which is impracticable without such prolonged treatment as is inconvenient. The extraction was performed as follows: Fifty grains of the sample, if possible in fine powder, was allowed to stand an hour with 1 oz. of petroleum spirit, frequently agitated. It was then boiled for a short time, the solution decanted, and the residue boiled with successive half-ounces of petroleum spirit. All the solutions were filtered through a weighed filter, upon which the residue was finally washed and dried at 100° C.

The sulphur was determined by fusing with trisulphate of potassium and carbonate of sodium, except in those cases in which the substance would not powder. These were treated with a large excess of pure fuming nitric acid, and, after a gentle heat, and afterwards boiled, the solution was diluted with water, almost neutralised with ammonia, filtered and precipitated with chloride of barium. The sulphur was determined in the part insoluble in petroleum spirit in one of the Syrian asphalts, and in the asphalt of pitch and Val de Travers asphalt.

A description of the source and properties of each kind was given in the paper, and the accompanying table gives the results of the investigation for comparison:—

Description	Soluble in Petroleum Spirit	Insoluble	Ash	Sulphur	Organic matter soluble in P.S.	Specific gravity at 15° C.
Coal tar pitch, No. 1	24.44	75.56	20	69	24.49	7.1
" " No. 2	18.70	81.30	1.6	41	18.90	8.0
" " No. 3	15.86	84.14	43	29	15.94	8.6
Rosin pitch ..	86.94	13.06	8	26	87.45	1.5
Stockholm pitch ..	91.46	8.54	81	0.15	92.23	1.7
Stearine pitch ..	71.05	28.95	5.50	0.4	75.18	2.2
Trinidad pitch ..	36.24	63.76	37.76	3.47	58.22	4.8
Fine Syrian ..	48.16	51.84	68	6.13	48.49	5.1
Low Syrian ..	49.68	50.32	2.64	5.65	51.02	4.3
American, No. 1 ..	65.64	34.36	60	62	66.03	3.7
" No. 2 ..	63.62	36.38	26	85	63.78	3.2
Val de Travers ..	9.76	90.24	90.24	41	100.00	1.2
Burgundy pitch ..	99.01	0.96	14	none	99.18	1.2

The PRESIDENT said that some samples of asphalt were known to contain nearly 100 per cent. of combustible matter, and during months some alarm had been expressed in the public press about the danger of fire. It had been suggested that the use of asphalt paving should be discontinued, and that the public should be warned to provide a ready means of setting fire to a whole town. It was, therefore, to go forth to the public that the asphalt so used consisted of 10 per cent. of combustible matter. To set light to it would be as to set light to a mixture of 1 part of gunpowder and 9 of sand.

Mr. CONROY said that chemists would not buy genuine Burgundy pitch, which was not often. It was less irritating, and was purchased by customers.

CONTINUATION TO THE PHARMACY OF THE POMEGRANATE.

By Louis Siebold.

The author wished to obtain, by a comparatively simple process, a pharmaceutical preparation of this bark, which, possessing the full activity of the drug, is at the same time free from the nauseous taste and the unpleasant effects which usually attend its use. The details of the process finally adopted are as follows:—

Three pieces of the coarsely-powdered root-bark are digested successively three times with 48 fl. oz. of water at 160° Fahr., each time for about twelve hours, during which the mixture is frequently agitated and the temperature maintained at or near the point given. The strained infusions, amounting in all to nearly 140 fl. oz., are united, and gradually mixed with a solution of sugar of lead until no further precipitate is formed on testing filtered portions; the whole is then filtered, the slight excess of lead removed from the filtrate by a current of washed sulphuretted hydrogen, the mixture warmed for some time to expel the excess of the gas and again filtered, and the perfectly-clear liquor evaporated on a water-bath to the consistence of a syrup, at a temperature not exceeding 140° Fahr. Evaporation *in vacuo* would probably be better still; but this had not been tried. Finally, the small quantity of residue left is mixed with syrup of orange el sufficient to produce a draught of about 2 fl. oz. This draught represents a dose for an adult, and should be taken once, first thing in the morning, and the patient abstaining from food and keeping quiet for about four hours after the administration. A diet of meat and fish, without bread or farinaceous food of any kind, should be observed for the two days preceding the cure, and on the last day no food whatever should be taken after dinner. During this afternoon it is also advisable to clear the bowels by means of a mild purgative; if then the draught be taken at about 6 or three o'clock the following morning and sleep again undisturbed to after its administration, the patient will have done all he can to ensure success.

In eight out of nine cases in which the efficacy of this preparation was tested the entire tapeworm was expelled within a few hours after the consumption of the draught, and in only one case only success was not complete.

The preparation obtained as above has a pleasant fruity flavour and is readily borne by the stomach. The most fastidious patient would take it without the slightest difficulty. The value of such a preparation appears the greater from the fact that all tapeworm remedies of repute share the nauseous taste and sickening effects of the decoction of pomegranate bark.

The Pharmacist thought the value of the dose seemed quite to justify the pharmaceutical time and trouble expended. He noted that 6 oz. of material had to be treated with 7 pints of water, and then reduced to a single dose. He would ask if it kept well. If it had to be prepared for each case, so much the better for pharmacy.

Dr. Q. LAM had listened to the paper with a great deal of pleasure. Turpentine was almost the only valuable remedy for tapeworm, and he had had a quarter of an hour after giving a dose which failed to act. He had always believed in the old Spanish remedy pomegranate. He would test the preparation and report on the results in the medical journals.

Mr. T. W. ER believed that the extremely nauseous taste of pomegranate decoction is due to tannic and gallic acids. Could not the surplus lead be removed by sulphuric acid or soluble sulphates? The use of H₂S was considered.

Mr. S. V. S. thought that oil of male fern was dispensed more than any other antelmintic.

Dr. Q. LAM said that he had returned to turpentine under protest after frequent failures with all the other drugs in use.

Mr. S. L. D., in reply, said his preparation had kept two months, but he did not know how much longer it could be preserved. He would prefer to see the preparation taken up by some wholesale house, as it would take some days to prepare it to a physician's prescription. He did not think that the sulphuretted hydrogen could be replaced by sulphuric acid, as boiling acids destroyed the effect of the drug.

apparently been broken off large thick cakes, with the object of obtaining a representative specimen of the bulk from which they were taken. These were of a uniformly dark ash-grey colour, breaking easily and presenting a resinous shiny black fracture, indistinguishable from pure virgin gum. Triturated in a mortar the pieces were easily reduced to a buff-coloured powder, somewhat darker than what is usually obtained from the virgin gum. This powder formed a very nice emulsion with water, and in other respects appeared quite satisfactory. To ether it yielded 83.8 per cent. of a nice amber-brown resin, and a decoction of the residue when cooled was turned blue by iodine, as is usually the case with nearly all commercial specimens. The starch thus indicated was found by the microscope to be wheaten. So far nothing arose to create suspicion, but the resin obtained by the extraction with ether had a peculiar smell, which recalled the odour of the resin prepared from the root by means of alcohol, pharmaceutically known as scammony resin. Another portion of the sample was powdered and compared with a sample of true virgin powder, and at once revealed the presence of the resin prepared from the root. This resin will reveal itself by its very peculiar and persistent leathery odour, while the true gum possessed a quite as distinctive sour cheese-like odour. There was no doubt that this parcel has been made up of some skilful scammony and resin prepared from the root.

There was no discussion.

ACONITINE FOR INTERNAL ADMINISTRATION: ITS CERTAINTY AND SAFETY.

By T. B. Groves, Weymouth.

ACONITE seems to be more used in medicine in America than in this country. Dr. Squibb has recommended the use of a fluid extract of the root, which itself is very variable in quality. After the numerous scientific researches on the subject this seems a distinct retrogression. The subject is not exhausted, but investigation is hampered by the restrictions placed on physiological experiment.

Aconitum napellus is the species almost always ordered. Its alkaloid can be prepared in a crystallised state and is easily identified. Dr. Fraser, of Edinburgh, has investigated its physiological action, which differs from that of the alkaloid of *A. ferox*. The latter root, whenever it can be obtained, is, however, used for the manufacture of the alkaloid. The root of *A. paniculatum* sometimes occurs, introducing another alkaloid of different properties.

Aconitine before it can be safely used for internal exhibition must be separated in a crystalline condition. This is not difficult, but it is wasteful. Ordinary skill only is required, helped by extraordinary patience. The nitrate is the best of its salts to crystallise, and can be produced in quantity averaging, perhaps, one-third of the total yield of alkaloid. From the nitrate the pure alkaloid or any of its salts can be made without difficulty.

It fortunately happens that the nitrate of fer-acconitine is crystallisable only from a strongly acid solution. It is therefore necessarily excluded from the crop of crystals obtained from a neutral or nearly neutral liquid.

There remains the possible admixture of picroaconitine, the nitrate of which crystallises in forms so like those of napaeaconitine that by an ordinary observer they would not be distinguishable. The bitterness is its most patent distinction. The poisonous aconitines are not bitter. Moreover, its comparative solubility in dilute ammonia is characteristic, so that a nitrate of aconitine that yielded on precipitation with dilute ammonia a proportion of alkaloid much less than that due to its centesimal composition would deservedly be suspected. However, the best test of all would be the physiological applied to each batch of alkaloid by competent experimenters, and a series of preparations so guaranteed produced by a house of known reputation would soon be accepted by the medical profession as a most useful addition to the list of heroic remedies.

Dr. ALDER WRIGHT regretted the retrogressive action of the American Pharmacopoeia Committee. He had supplied them with a précis of the state of knowledge on the subject, and had hoped that the information would lead to the adoption of a crystalline alkaloid. The nitrate of aconitine was convenient to prepare, but the hydrobromate was almost equally insoluble, and in solution was more permanent than that of the

SCAMMONY—A NOVEL ADULTERANT.

By Michael Conroy, F.C.S.

A SAME which represented a direct importation from Constantinople came into the author's hand for the purpose of analysis. It consisted of several small pieces which had

nitrate, which was subject to a slight decomposition and required to be freshly made. He had supplied Dr. Stevenson with samples of various alkaloids in connection with the Lamson trial, and his experiments were still continuing.

Mr. WILLIAMS was rather bound up with an amorphous form of the alkaloid, having been more or less connected with it through the late Mr. Morson. He hardly thought it advisable to change to a crystalline alkaloid, as the amorphous form seemed to have more active physiological properties.

THE COMPOSITION OF EASTON'S SYRUP.

By Robert H. Davies and Emil B. Schmidt, Ph.D.

EASTON'S SYRUP professes to contain "about 1 grain phosphate of iron, 1 grain phosphate quinia, and $\frac{1}{35}$ grain phosphate of strychnia in each fluid drachm. This statement is made by Mr. Squire,* and a formula given for making the syrup which is called "Dr. Easton's formula."

Proportion of Quinia Phosphate.—If the directions given here are carefully followed, the product will measure between 24 and 24½ fl. oz., and will contain the quinia phosphate derived from 192 grains of sulphate. Approximately, then, 1 grain sulphate of quinine has been used in the production of 1 fl. drachm of syrup, which corresponds to 0.86 grain of phosphate of quinia per fl. drachm. The amount of this latter in a sample of syrup prepared in accordance with Dr. Easton's formula, deduced from the amount of alkaloid extracted, was 0.814 grain per fl. drachm, that is, 6.51 grains per fl. oz., whereas in various other samples of commerce the amount of phosphate of quinia varied from 1.57 grain to 7.13 grains.

A sample, prepared in accordance with the Pharmacopœia of the United States, yielded alkaloid corresponding to 8.56 grains quinia phosphate per fl. oz.

Proportion of Ferrous Phosphate.—Dr. Easton's formula would give a maximum of 5½ grains per fl. oz. only, instead of the 8 grains as claimed. But even that amount of 5½ grains per fl. oz. is most probably not reached, since in the process of decomposition a quantity of sulphuric acid becomes liberated, which doubtless prevents a portion of the ferrous phosphate from being precipitated.

The amount of iron present in the samples examined was equivalent to ferrous phosphate, varying from 0.97 grain per fl. oz. to 12.32 grains. The amount in a sample made by Easton's formula was found to be 4.7 grains.

Proportion of Strychnine.—This varied from 0.6–0.8 to 3 grains per 4 fl. oz.

The sample prepared according to formula showed .8 grain in 4 fl. oz.; by this test, theoretically, 1 grain should be found in this quantity.

Phosphoric Acid.—Commercial samples contained from 19.36 to 49.24 per cent. of this acid. A sample made according to Easton's formula yielded 37.68 grains per fl. oz., and the theoretical amount is 38 grains. The sp. gr. varied from 1.270 in the standard sample to 1.326.

The substance of this paper was given in a few words by Mr. PLOWMAN in each case the processes of estimation were detailed in the original.

Mr. PLOWMAN remarked that in the estimation of quinine the whole residue from chloroform and ether was taken as pure quinine, which was a serious blemish.

THE ODOROUS PRINCIPLE OF HENBANE LEAF.

By A. W. Gerrard, F.C.S.

A FEW years ago some fresh henbane leaves particularly attracted the author's attention by their unusually strong but very characteristic odour. By a process, given in full, he succeeded in isolating the odorous principle, which forms a pale yellow unctuous semi-crystalline mass, having the appearance of a stearoptene. Its odour was that of henbane, at the same time suggestive of butyric acid. It was found on further examination that it contained butyric acid, so that it is a butyric ether, or, it may be, a butyrin.

Practical bearing on the Pharmacy of Tincture of Henbane.—It is well known that some tinctures of henbane give a turbidity when diluted with water, whilst others do not; also that the tincture gradually loses its green colour, forming a dark deposit. As regards the former it has been stated that the difference is due to the use of annual and biennial

henbanes, a tincture of the latter only giving turbidity. This is not the fact, as the tinctures from both varieties when freshly made equally give turbidity; it is the difference is sometimes observed, and may be attributed to the period at which the plant has been gathered, and the extent to which the odorous principle and fat have developed. Many samples of tincture of henbane almost entirely lose their property of becoming turbid with water; this is generally the result of age, for such a tincture will have lost its original green colour and changed to a brown with formation of the usual dark deposit. The deposition and disappearance of turbidity are simultaneous and proportionate. The deposit in the tincture, if examined, probably be found to consist of a mixture of creosote, principle, fat and chlorophyll, the separation of which is effected by the agency of the water in the preparation; this be so, then it is an argument for the use of a strong alcohol in making this preparation.

There was no discussion.

SUGGESTIONS FOR COMBINATIONS OF COLLODIONS.

By J. B. Barnes, Pharmaceutical Chemist.

THE advantages of combinations of collodions are that they like ointments, they remain fixed for some time after being applied, and are cleanly. It remains, however, to be ascertained whether the remedial effects of the several substances in combination with it will be obtained. Collodion thus used for the action more or less of all of them, but at the same time it is reasonable to expect some of those under consideration may be found useful. The following have been found suitable:—

Collodions.—Wood-tar collodion, 1 drachm by weight to 4 of collodion. Coal-tar collodion, the same proportion. An alcoholic extract of coal-tar of the consistence of fluid ounce of either of these preparations do not lose their consistency or adhesive properties.) Oleum of juniper, 1 by weight to 5 of collodion. Oil of gurgun, by weight to 3 or 4 parts of collodion. Oleic acid and Perian by weight, each in the proportion of 1 by weight to 4 of collodion.

Flexible Collodions.—Glacial acetic acid, 1 part by weight to 4 of flexible collodion; 4 parts; carbolic acid, in catals, to 4 of flexible collodion; creasote, 1 part by weight to 4 of flexible collodion; and essential oil of mustard, 1 part by weight to 4 of flexible collodion. Belladonna collodion, macerate 60 parts of an alcoholic extract in a fluid ounce of flexible collodion; twenty-four hours, and decant the clear liquid. Atropia, and hyoscyamia dissolve very readily. Veratria, 8 grains dissolved in 1 fluid drachm of flexible collodion; mixes with 7 fluid drachms of flexible collodion; 5 or 10 grains in a fluid drachm of the acid will give a flexible collodion.

Ammoniated mercury, iodide of lead and sulphur: each of them should be mixed with flexible collodion in the proportion of 1 drachm to 7, and 4 parts of castor-oil.

Oleate of mercury should be mixed with flexible collodion in the proportion of 1 to 4.

To prepare the oleate take 1,320 grains of oleic acid, dilute with three volumes of ether; add 420 grains of binoxide of mercury, and shake the mixture occasionally for four days, until the orange-colour of the binoxide has disappeared, allowing the creamy compound to evaporate by the application of heat. The dilution of the oleic acid with ether prevents caking; the oleate of mercury so obtained has a yellowish-white colour, of the consistence of vasoline.

Oleate of zinc will mix in the proportion of 1 part to 4 of flexible collodion.

Iodide of cadmium dissolves in flexible collodion, mixed with 7 fluid drachms of the collodion and 4 parts of castor-oil.

When iodide of sulphur is treated with flexible collodion, iodine dissolves out and the sulphur subsides.

There was no discussion.

Towards the close of the proceedings there was an evident tendency to hurry. Papers were read rapidly, and the discussions dwindled to the finest ten minutes at the end of the programme was reached.

Mr. OWMAN rose to perform what he said was a very pleasant task. The books provided by the generosity of Mr. Hyde Hills, with those given by Mr. Thomas Hanbury, in memory of his brother Daniel Hanbury, could not be presented to the local Association, as none at present existed out they would be placed in the care of the local secretaries to the Pharmaceutical Society as the nucleus of the library. His only hope was that it would grow as rapidly as the town, with signs of equal permanency. Mr. HIXON, the local secretary, who was very warmly received, thanked the Trustees for the gift, and assured them that the number of books would be very considerably added to, and the books themselves much appreciated.

THE PLACE OF MEETING FOR 1884.

Mr. BADEN BENDER said that most were aware of the custom of the Conference to accompany the British Association. The latter was to visit Canada next year, an invitation had been sent by the chemists of Aberdeen and Northern Scotland. But during the last few days circumstances had changed. It had transpired that the British Association would probably visit Aberdeen in 1885. The Aberdeen chemists had therefore temporarily withdrawn their invitation. The Conference was not without a home. He would read a letter from Mr. James A. Bell, inviting the Conference to Hastings. He moved that this cordial invitation be cordially accepted.

Dr. C. SLAN seconded.

The motion was put and carried unanimously.

OFFICERS.

The result resulted as follows:—

President—J. Williams.

Vice-Presidents.—Mr. Carteighe, London; J. R. Young, Edinburgh; S. R. Atkins, Sydney.

Treasurer.—C. Ekin, Hounslow.

General secretaries.—F. Baden Benger, Manchester; S. Plowman, London.

Other Members of Executive Committee.—J. Borland, Kilmarnock; J. C. C. Payne, Bath; W. A. H. Naylor, London; W. V. Radley, Southport; W. H. Hills, London; G. S. Taylor, London; J. C. Thresh, Buxton; J. B. Thompson, Edinburgh.

Auditor.—T. H. Sykes, Southport.

VOTES OF THANKS.

Mr. SPHENSON moved that the cordial thanks of the Association be given to the chemists of Southport and district, especially to Messrs. Radley, Ashton, Ball, Sykes, and Kershaw, for their hospitable reception. They were under such an active sense of the favours and kindnesses they were still receiving, and of what they would receive at night and on the morrow, that the motion needed nothing to recommend it. In the peripatetic existence of a Conference, it had met with such continued hospitality, that it was very difficult for any town to surpass previous efforts. The very least that could be said was that Southport had held its own. They had already received their reward in the fact that this was without exception the best attended meeting the Conference had held.

Mr. T. LOR seconded the motion, speaking for the South of England.

Mr. B. GER said he had seen more of the work of the local committee than any other member. He had only to sit still and put on the brake. The brake did not act, and was powerless to check the flow of enthusiasm.

The President also supported the motion.

The motion was carried with acclamation, and Mr. RADLEY, rising to respond, was received with great applause. He thanked the meeting for the kind way in which the labours of the local committee were appreciated, and hoped that the friendly meetings the work of preparation had involved, the brethren of his own and neighbouring towns, and the warm era of friendly feeling inaugurated, would serve as the foundation for a local association.

Mr. ALFON, secretary to the local committee, said the work had been a labour of love, and had been the means of bringing together many who were not in the habit of meeting. He especially thanked Dr. Ball was away working for the Conference at St. Helen.

A vote of thanks to the public bodies who had opened their institutions to the members of the Conference was

proposed by Mr. Brunner, seconded by Mr. W. A. H. Naylor, and carried.

Mr. JOHN WILLIAMS then rose to propose a vote of thanks to the President, Dr. Attfield. The excellence of his address, he said, and the manner in which the meetings had been conducted, made him tremble to think that whoever followed must inevitably fail. For himself, he would not attempt to imitate Dr. Attfield's course, except at a long distance.

Mr. MASON (Liverpool) said the motion needed no second. They were indebted to Professor Attfield, not only for presiding, but for his very able address. It would have doubtless been more congenial to him to deal with scientific subjects; but he had forgone his own feelings, and entirely consulted those of his audience. Mr. Kershaw had thrown out a suggestion which he (Mr. Mason) would like to put as a formal proposition, namely:—"That copies of both addresses should be presented to every member of the House of Commons." He thought there would be no great difficulty in doing this. For the first time since it came into existence, the roll of officers of the Conference would now cease to bear Professor Attfield's name. Though his name was no longer there, doubtless his heart would be.

Mr. PLOWMAN explained that Dr. Attfield would still be a vice-president, in virtue of having passed the chair.

Mr. SCHACHT read a short extract from the *Times* of the day.

The PRESIDENT rose to respond, and thanked the mover, seconder, and supporter of the vote; his colleagues, and the members of the Conference; the past presidents, from whose example he had learned so much; the secretaries, the authors of papers, among whom he was proud to see so many of his own pupils; all who had attended the Conference, numbering nearly two hundred; and especially those who had come to give him their personal support. The wish expressed that his two addresses should be placed in the hands of all members of Parliament he considered a great personal compliment. He knew of no difficulty in the way. Knowing that he intended to complete the subject, he had a thousand or so copies of his first address struck off at the time; these could be bound up with the second, which was still in type. He had been able to give his services to the Conference, without a break, for twenty-one years, and though straining to his powers it had been a labour of love. He felt that pharmacy had given him his position—he had begun life as a pharmaceutical apprentice—he had therefore felt glad to do all he could to promote its welfare. As one of the elected officers, he must now bid them a loving farewell.

The attendance at the Conference was the largest hitherto. The signatures in the visitors' book numbered 186, excluding duplicates. This is the fifth time the number has exceeded 150—namely, Liverpool, 170 in 1870; London, 175 in 1874; Glasgow, 176 in 1876; and York, 166 in 1881. Since its inauguration the Conference has met eleven times in towns north of a line joining the mouth of the Mersey and the Wash. The attendance has eight times exceeded 100, and averages 125. It has met ten times in towns south of the line, with an average attendance of 105; 100 being exceeded only five times.

Bacon—Sutcliffe, G. H.
Barnsley—Lister, J. H.
Belfast—Payne, J. C. C.
Bentham—Sherlock, Edgar, M.A.
Berlin—Mylius, Dr. Franz
Birmingham—Perey, Geo. E.
Birkenhead—Cragg, Jess.
Bishop Auckland—Leigh, John V.
Blackburn—Farnworth, Walter;
 Farnworth, William
Belton—Forbes, N.; Harwood, E. G.;
 Mason, W. B.
Bottle—Alexander, John; Wyatt,
 Harold
Bournemouth—Worth, E.
Bradford—Waddington, H.
Brighton—Savage, W. W.
Bristol—Schacht, G. F.
Burnley—Hitchin, Robt.
Bury, Lancs.—Siebold, Louis
Buxton—Thresh, John C.
Cheltenham—Barrow, W.
Chester—Baxter, Geo.; Grindley,
 Wm.; Williams, Thos.
Clayton-le-Moors—Johnson, Mark
Dumfries, N.B.—Stanford, Edwd.
 C. C.

Droitwich—Taylor, E.
Dublin—Brunner, J. E.; Quinlan,
 Dr. F. J. B.; Wells, F.; Wells,
 J.; Wells, W. F., jun.
Eccles—Harland, R. F.; owie,
 W. L.
Edinburgh—Dott, D. B.; Stephen-
 son, John; Symington, Thos.;
 Lee, J. Dickinson
Farnworth—Watkinson, J. W.
Freshfield—Parry, H.
Gissen—Will, W.
Glasgow—Frazer, Daniel; Nicol,
 John; Rait, R. A.
Gloucester—Stafford, Wm.
Great Horton—Lister Si-
 mahfar—Alexander, Dr. Wm.
Helenburgh—Tocher, Geo.
Haywood—Beckett, W.
Hymn—Wild, Joseph
Hyde—Curfew, John
Kilmarnock—Borland, John
Leicester—Clark, J. W.
Leeds—Fairley, Thos.; Horsfield,
 John Napier; Jefferson, Peter;
 Reynolds, F.; Reynolds, Richd.;
 Ward, Geo.

London—Attfield, John; Attfield, D. Harvey; Boudas, J.; Butt, Mr. and Mrs. E. N.; Crawshaw, E.; Ekin, C.; Glazier, Walter N.; Hills, Walter; Holmes, E. M.; Ive, W.; Jamieson, A. E.; Lewinton, A. B.; Maitland, P. C.; Mortiboy, John; Moss, John; Navlor, W. A. H.; Passmore, F.; Pickard, W.; Piper, W. G.; Plowman, S.; Princep, P.; Robeson, C.; Robinson, R. A.; Rowe, Robt.; Sander, A.; Tanner, A. E.; Taylor, Geo. S.; Williams, John; Williams, T. B.; Williams, T. N.; Williams, M. Whiteley; Willmott, W.; Wright, Dr. Alder; Wright, T. R.; —, C. A. P.

Lytham—Hartley, J.; Simpson, Rev. S.

Lincoln—Culwick, Herb. E.

Liverpool—Abraham, A. C.; Abraham, T. Fell; Bllington, Fred; Burrows, Fred; Conroy, Michael; Davies, Edwd.; Fraser, Alex.; Galloway, J. B.; Hocken, J.; Hyman, Alfred; Johnson, Edwin E.; Mason, Alfd. H.; Samuel, Albt. H.; Sumner, E. L.; Syme, Charles

Salton—Buckle, Jas.

Manchester—Benger, F. Baden; Butcher, G. S. (alford); Carter, Wm.; Gibbons, T. G.; Hart, J.; Jackson, Mr. and Mrs. Alfd. H.; Paine, Alex.; Robinson, Benj.; Twemlow, Richd.; Wheelodon, Jas.; Woolley, Geo. S.; Wilkinson, Wm.

Market Drayton—King, W. G.

Mirfield—Crook, Charles

New Barnet, Herts.—Young, R. Fisher

Newcastle, Staffs.—Croydon, E. H. Oldham—Eckersley, Jas.; Glover, I. S.; Hulme, John; Martin, Anson E.

Ormskirk—Garside, S. A. Paisley—McMurray, Jas. Portobello—Nesbit, J. Preston—Hargreaves, M. Ramsey, Isle of Man—Laughlin, W. Reading—Cardwell, E. Rockferry—Dutton, John Roydon—Jones, F.

St. Helens—Sherlock, Mr.

Salisbury—Atkins, S. R.

Sheffield—Furness, Jos. M.; Learoyd, E. R.; Newsholme, G. T. W.; Ward, Wm.

Shepton Mallet—Cottrill, Gilbert, J. Southampton—Chippfield, Robt.

Southcoote—Ashton, Wm.; Ball, Mr.; Ellis, Geo.; Ellis, G. W.; Hinkley, Ed.; Kershaw, Jas.; Loadman, Jas.; Radley, W. V.; Righton, Jas.; Round, Fred; Steel, Alex.; Surr, Edwd.; Sykes, Mr.; Taylor, R. E.; Wimpenny, Jas.; Wright, Thos. D.; Whitworth, Jas.

Swansea—Grose, N. M.; Hughes, Jas.

Tarporley—Aston, Walter

Todmorden—Lord, Chas.

Torquay—Riches, Thos.

Tyldesley—Wallwork, Joseph

Tynemouth—Atkinson, J.

Walton—Smith, John J.

Warrington—Young, J. Rymer

Willington—Butler, Jas.

Wigan—Phillips, Jonathan; Sto-

thert, Jas.

Yorbt—Maggs, Thos. C.

Forks—Clark, John; Dresser, Richd.

Unk nown—Jelly, Dr., physician to

H.M. Dona Isabel II., Madrid

THE ENTERTAINMENTS.

Few towns of the size, with a history so short, can boast of so many attractions for visitors within its own borders. The full advantage of these was given to members of the Conference. At the midday adjournment on the Tuesday each member was presented with a ticket of admission to the Winter Gardens and Aquarium, which are nearly opposite the place of meeting. The fine conservatory contained some magnificent *Bourvardias*, tree ferns, and other plants of handsome foliage, with devices in the ornamental arrangement of plants which were new to some visitors. The aquarium did not present many very distinctive features, but we noticed a beautiful collection of sea anemones in table-tanks. After the close of the day's business the meeting adjourned to the swimming-baths, supplied with filtered sea-water. There are three plunge-baths at different rates for admission, with private hot, cold, shower, medicinal, and all other baths, and the proprietors claim that the area of the swimming-baths is greater than that of any other sea-water baths in the world. Here a special swimming gala was given, in which the male and female teachers of swimming, the "champion professional swimmer of the world," and a number of girls and lads took part. Swimming in clothes, and the best way of undressing in the water, how and how not to rescue a drowning person, how to assist an exhausted swimmer, and a variety of fancy and fanciful swimming-feats were all displayed. The last feat was a demonstration of the right and wrong way of righting a boat that has been upset.

Next day at lunch-time the assembled worthies were photographed in a group. After the conclusion of the business a visit was made to the Glaciarium, or real-ice skating-rink. The fine weather enjoyed so far then dissolved in torrents of rain, which continued with little variation till the end of the proceedings. The ice for the rink is made by Gamgee's process; a solution of magnesium chloride, which flows under the ice, is cooled several degrees below freezing-point by the evaporation of liquid sulphurous acid. The acid is relievied by pressure, and the process is continuous with both acid and saline solution. The company, the only one of the kind in the world, also manufactures ice for commercial purposes. On entering the rink, the transition from autumn to a wintry atmosphere was sudden enough to make most visitors shiver. On the ice, several gentlemen and lady amateurs who had kindly consented to

come gave an informal display of very elegant skating, including waltzing and quadrilles.

Thursday was given up to pleasure-seeking. At 8.10 A.M. train the party went to St. Helens. The scene on the way was very characteristic; it was curious to note how the trees leaned away from the sea breeze, and, when a certain hill was passed, suddenly leaned in the opposite direction, showing that we were again nearing the coast. Skeleton trees and bare soil marked the approach to Helens. The works which the members were invited to visit were the Union Plate-glass Works, Kur & Co's Chemical-works, Bishop's Flint-glass Works, at Messrs. Bibby & Son's Copper-smelting Works. The most interesting of the party showed that the plate-glass works, in which smelting were most popular in anticipation, but when compared afterwards it was found that the cost of the process and freedom with which information was given made the visit to each establishment thoroughly satisfactory and most enjoyable. The local committee and the chemists of St. Helens are to be congratulated on the excellent entertainment they were thus able to provide.

Messrs. Kurtz & Co.'s chemical-works are devoted to the manufacture of soda and the bye-products by the Leblanc process. The most remarkable feature was the minute attention directed to economising all the materials and labour required. Thus, nitrous vapours, that would otherwise escape into the air, were met and retained by a current of sulphuric acid and used for the oxidation of sulphur near of oxide. In the bleaching-powder chambers tubs are placed so that the finished powder could be dropped into the tamped down, and covered ready for transport without exposing it to the air. It was noticeable that the impure solution of potassium chlorate produced crystals of a different in appearance from the flat tables commonly met with. The commercial chlorate manufactured here contained less than half per cent. of impurities. The general features of the manufacture are known to our readers and a briefest description would take more space in our paper.

At the Union Plate-glass Works the operation of casting was not in progress, but all the other processes were shown. The melted glass is poured on flat tables of cast iron 9 inches thick at the edge and 12 inches at the centre weighing 35 tons, and mounted on rails, so that they can be easily moved. They are made so thick to prevent warping with the heat of the molten glass. The last one up to seventy horses ten days to bring it ten miles. As far as the plates are annealed in low reverberatory ovens, made level as possible by a layer of sand, in which they are posed for three or four days. After this process the surface is flat and highly polished. It will withstand weather and all acids, and is known as "fire polished." The lower surface is slightly irregular, from contact with bottom. After annealing the plates are polished through four successive stages. At first they are cemented heavy bed by plaster of Paris. A cast-iron plate is laid on it, with sand and water between, and a circular motion given by machinery. This gives a nearly level surface. The next stage two plates are made to grind each other with emery between. The result of this is a smooth "ground glass" used for windows and doors; the surface is smooth but opaque. Plates of glass are never perfectly level, and to keep the two plates in apposition they have to be weighted at the edges. A second emery grinding follows, and the final polishing is done by felt, rouge, or oxide of iron, worked by a rare and complicated and very noisy machine. The plates are then their own emery, which comes from Naxos in the Greek Archipelago; burn their own plaster of Paris; make their own rouge by roasting copperas in ovens to which the flame has no access; wash the sand which does fine work in Prussia for making the "metal"; and are self-sufficient as far as it is possible to be so. The works stand on a piece of ground, and more than 700 hands are employed. They were struck with the healthy, neat appearance of the workers who were clean in spite of their dirty work. The tour conducted by the chemists gave many curious details of the value of plate glass for which we cannot find space.

At Bishop's flint-glass works the processes of grinding, and ornamenting lamp-shades were exhibited. The details of the manufacture can hardly be described.

advantage. For the special entertainment of the visitors, one man produced a handled water-jug, the manipulation being very clever.

Messrs. Bibby & Son's copper-smelting works the small who had time to visit them were shown all details of the manufacture from the original pyrites. The ore used is from Newfoundland, and contains traces of silver and gold, which, however, are not recovered at these works. The first some furnaces waiting for a long time to give the visitors the opportunity of seeing one process.

(The return to Southport everyone hastened to the Botanical Gardens, about two miles from the town. About 400 ladies and gentlemen assembled, and, in spite of the driving rain, were comfortably accommodated and admirably entertained in the Conservatory and Museum. Mr. Leerdendon, an enthusiastic botanist, gave a demonstration of some rare plants in the Museum, and afterwards a truly popular lecture in the Conservatory. The specimens exhibited were most admirably preserved; one secret of his success, Mr. Grindon says, is the use of cotton wool in the preliminary process of drying. Delicate parts are protected by tissue paper, a sheet of cotton wool is placed on the plant and pressure applied. After a few days the tissues will be sufficiently stiffened to allow of their transfer to ordinary drying-paper, and the parts are preserved in their original form and position to an admirable degree. Next to the interesting works thrown open to the visitors at St. Helk, the grand treat of the day was the rendering of partings and choruses by members of Mr. Hallé's choir from Manchester.

The fernery attached to the conservatory was a charming place, adorned with Australian tree ferns, beautiful specimens of begonias, finer than any we have seen elsewhere, and all kinds of ornamental plants. A fine military band was in attendance, and gave selections at intervals throughout the afternoon. Towards dusk the weather cleared, and members dispersed over the fine grounds, the younger and rasher visitors betaking themselves to boats and jocos on the artificial water. The Conference must be commended on securing such entertainers, and the entertainment on securing such success and hearty appreciation.

THE PRESS ON PHARMACY.

A GREAT many of the principal organs of public opinion have given summaries of Professor Attfield's recent address to the Pharmacy Conference, and in many cases have added comments, generally exhibiting a favourable tendency towards the claims of pharmacists. We give the essence of these below.

The Times says:—

The manner in which, as it is asserted, retail chemists are being pushed out of existence forms part, it need hardly be said, of the revolt against excessive retail profits which has of late years become general among people of moderate income. Professor Attfield might possibly not condemn this revolt as a whole; but he contends very forcibly that it is misdirected in the particular case with which he deals. There are some trades in which the action of the intermediate is extremely valuable, and of these that of the druggist is a conspicuous example. It is of the highest importance to all who require medicines that they should be of good quality, neither impaired by keeping nor defective by reason of faulty preparation; and yet in the whole range of articles of merchandise there can be few which are liable to so much designed or accidental variation. Many drugs are products of plants, leaves, roots, bark, and the like, and the qualities of these will vary with soil, season, and manner of cultivation, besides being prone to deteriorate by lapse of time. Many others are chemical preparations which may be injuriously affected by careless manufacture; and all alike are seriously exposed to risk from that all-pervading practice of adulteration which is described by a well-known politician as a legitimate form of commercial enterprise. In order to sell any named drug with safety and propriety, the dealer must be thoroughly acquainted with its appearance and other peculiarities, must know how to distinguish the genuine from fraudulent imitations, and, in a word, must be capable of maintaining a check upon the wholesale dealer from whom he draws his supplies. Such work as this is not mere distribution, mere buying in bulk to sell in

detail; and it deserves to be recognised and paid for as something which possesses a higher value. It may be to the interest of the public to pay for it even at a considerable rate, for the sake of having such special information always available in time of need.

The value of the educated druggist is, or ought to be, that he protects the consumer, and for affording this protection he has a clear right to be paid. Professor Attfield suggests that the chemist might avowedly justify his charges by his knowledge of the things in which he deals; that he might say, in effect, "this medicine which I sell for sixpence cost me only twopence; and if I were a grocer, I could sell it for threepence and be content. The remaining threepence is not my charge for the medicine, but for my time and trouble in ascertaining that it is genuine and unimpaired." We think the customer would generally admit the plea; and hence that, on the ground of special knowledge, the druggist might fairly hope to triumph over any unreasoning desire for cheapness which co-operative stores, or kindred institutions, by giving it where it can be rightly given, have perhaps fostered in conditions which prevent it from being conceded without risk to the public. When Parliament meets, we trust that the official representative of the drug trade may be able to obtain a serious consideration of the existing state of things, and that some measure for rendering the Pharmacy Act no longer a dead letter may before long find its way into the Statute-book.

The Daily News says:—

Professor Attfield's address to the British Pharmaceutical Conference was one of considerable interest and importance to the public at large. That public is wont to be rather sceptical of jeremiads as to the state of particular trades and professions. It is felt that if a certain trade or profession is exceedingly flourishing the public may make up its mind that it is flourishing at somebody's expense, and that that somebody is probably the public itself. Professor Attfield, however, has shown very conclusively that the entire disestablishment of the qualified chemist and druggist would be a public misfortune, against which the possibility of obtaining a shilling bottle for ninepence halfpenny will not be set by any wise person. It is, moreover, quite evident that it is, as he contends, an absurdity to maintain a solemn Act on the Statute-book inflicting pains and penalties on Dick, Tom, or Harry for calling himself a chemist and druggist without qualification, while any Harry, Tom, or Dick is at liberty to keep a chemist and druggist's shop, and to sell chemicals and drugs with no more qualification, licence, or State recognition of his fitness than his neighbours the bookseller and the draper.

It may be allowed that there is force in Professor Attfield's argument that drugs, especially compounded drugs, are not properly or safely to be made the subject of unskilled distribution; that much depends on their quality or condition, which cannot be left to a mere distributor to decide upon; and that in estimating druggists' charges allowance ought to be made for the fact that a man of some education and practical skill is practically putting his services at any hour of the day or night at the disposal of the neighbourhood where he sojourns. It would certainly be a forlorn hope to attempt to knock a co-operative society out of its bed at midnight to furnish the antidote or the restorative required to save life; and even the most affectionate of relatives might hesitate to call in the services of an obliging baberdasher to make up a prescription with half-a-dozen—even mild—poisons in it.

But it must be questioned whether it is in the power, and still more strongly questioned whether it is within the proper province, of legislation to apply itself directly to the remedy of the state of things of which Professor Attfield complains. That state of things is due to a variety of causes by no means all of which are recognised by the Professor. In the first place, all his ingenious fencing about the charge of the regular chemist being rather a professional fee than a trade price does not parry the accusation that this charge is but too generally an exorbitant one. Again, the chemist complains of competition; but are all the articles or even the most profitable articles of his trade strictly drugs? Does he not deal largely in perfumes, soap, mineral and aerated, but not medicinal, waters, miscellaneous toilet wares, knicknacks of all sorts and kinds? If he throws stones at the grocer and the bookseller, may not the per-

fumer, the oilman, the brushmaker, the liquor-seller retort on him? And with regard to the really important question of dispensing proper, are not chemists themselves liable to the charge of overstocking the market? The falling-off of registered druggists which Professor Attfield mentions may not be such a great disadvantage to the trade, and it might probably, at least in large towns, continue still further without any district being deprived of a qualified dispenser within easy distance. Many people must have wondered what chemists find to live upon in the suburbs of London, considering their number. The fact is that, partly from the supposed inheritance of the old apothecary status, partly from the custom of equipping the shop expensively and showily, the druggists' trade has long held the position of a "genteel business." All genteel businesses tend to be overstocked, and it may be added that they are especially liable to dangerous competition from persons who have a keener eye to business than to gentility. But, despite Professor Attfield's facts, we entertain very great doubts whether the duly-qualified druggist is as yet scarce, or likely to be scarce, in any populous neighbourhood. If it became really difficult to find him, legislative efforts for his preservation would have to be made, no doubt. But the Professor will hardly strengthen his case by putting in, as he does, a plea for allowing chemists to practise what is called "counter prescribing." In the first place, a complaint of competition with the chemist in drug-selling is but awkwardly mated with a recommendation of competition by the chemist in drug-prescribing. In the second we venture to think that the harm done by this amateur doctoring considerably exceeds that done by the selling of inferior, adulterated, or spoilt drugs, owing to the incompetence of the seller. In short, it is possible to go with Professor Attfield so far as to allow the justice and advantage of drawing the line of outward and visible difference between the qualified and unqualified drug vendor somewhat more broadly and distinctly than is done by the Act of 1868. It may also be granted him, though not to the extent which he seems to desire, that the list of drugs and compounds which none but a duly-qualified person may sell on any terms might be advantageously enlarged so as to draw such a line. But the principle of any such extension must be, not the protection of the chemist in the one sense, but the protection of the public in the other.

The Standard says:—

The address which Professor Attfield delivered to the Pharmaceutical Conference, while serving as a sort of "side show" to the British Association, which is also in session in Southport, would scarcely have deserved even the much-abused name of "science." Nor do we imagine that any such rank is claimed for it. The meeting over which Dr. Attfield presides is to a certain extent a great trade union, and his discourse touched mainly on the extent to which grocers who sell drugs, physicians who prescribe proprietary articles, patients who decline to swallow physic, and general practitioners who dispense their own medicines are cutting into the business of properly-qualified druggists.

The Liverpool Daily Post says:—

That druggists should, like other tradespeople, be exposed to sharp competition, with the inevitable result of lowering prices, is not of itself a grievance with which the public will greatly sympathise. But this is a matter in which genuineness of quality is of much more consequence than lowering of price. Still, it is difficult to see what direction future legislation should take. It would be impossible to give a certain class of men a monopoly of the sale of simple drugs. Even if it were not, it is conceivable that qualified druggists might sell inferior drugs—inferior, perhaps, in original quality, inferior from long haunting of the shelves. You may make druggists in this way the guardians of the public health so far as physic is concerned; but who is to guard the guardians? After all, the public must look out for themselves in this matter. If they are so stupid as not to recognise the advantage of scientific training in their purveyors of medicine, and prefer to buy physic at their drapers', it is difficult to say them nay. At the same time, with sensible people the best druggist will always have the best practice; and we do not know that excellence in any profession can have, or ought to want, any better guarantee than this.

The Manchester Examiner says:—

The President's address serves a useful purpose in forming the public that a class which is generally regarded as enviably placed in our social economy is no happier than any other class, and consists of "men with a grievance." The grievance is, that while the law requires them to pass an examination before they can enter upon the enjoyment of the profits of their business, it permits the general tradesman, who passes no examination, and who may be here to-day and gone to-morrow, to enter into serious competition with them in very many matters. In other words they complain that no restrictions such as they willingly admit to be imposed upon the very large number of tradesmen who compete with their own special trade as vendors of patent medicines. A good deal that Dr. Attfield said in regard to the public interest in this matter is undoubtedly true, and that admission may be made without involving acceptance of the whole of his conclusion that the Pharmacy Act should be extended in its spirit and letter to those of tradesmen other than qualified chemists dealing in drugs. No doubt, as he says, the public have no guarantee that they are not supplied with drugs "fair in appearance to the untrained eye, but worthless to the trained eye of the druggist, drugs which once perhaps were of good quality, but which, without altering in appearance, have become spoilt by age." It is not easy to see, nor does the address plain, how in such a case State machinery can supply a substitute for the salutary caution which the public is required to exercise for its own protection.

The Liverpool Courier says:—

Everybody knows that the pharmaceutical chemist is not above extending his trade by storing his shop with articles not strictly within the requirements of the healing art. He trenches on many of the trades enumerated by the Professor, even dispensing the cordials which the publican believes belong to his domain. Then again druggists have lost their countenance to the patent medicines, which certainly require no special skill to sell. The case of drugs which are not packed is very different, and here the public, as well as the druggist, is in need of protection which the existing law does not afford. It must be recollected that, as Professor Attfield points out, "nearly all drugs are poisonous more or less," and it follows that nearly all drugs should be dispensed and sold by persons conversant with their properties, and not admitted within that area of free trade which has tended to injure the druggist while jeopardising the health and lives of the people. We are afraid that the pharmacist must not look to the Legislature for much protection against the free-trade spirit of the age. Unless the "packed and packeted" drugs can be abolished, they must be prepared to see a large share of their trade in the hands of other people; but the public have a right to be protected against the unregistered dealers who vend poisonous drugs without knowing the dangerous qualities of what they dispense.

The Manchester Courier says:—

The address delivered by Professor Attfield, at the Pharmaceutical Conference, ought to receive attention. It discloses a serious danger to which the public are exposed, and to remove which legislation has taken place. That the law affords, nevertheless, no real protection, was abundantly demonstrated, and it is clearly of importance that something should be done for the purpose of remedying its defects.

The Birmingham Post says:—

If it be true, as asserted, that the existing Act regulates the sale of the most potent drugs in the Pharmacopoeia by unqualified persons, we can cordially co-operate with the chemists in procuring its amendment. Anybody, however, may hang a red lamp over his door, and decorate his window with globular bottles of coloured water, with impunity, and providing only that he does not call himself a chemist and druggist, he may dispense over his counter all the poisons in his shop, and compete successfully against the qualified druggists, who are handicapped by a long and expensive special training. The unfairness of this practice to the qualified chemist is a matter which he may be safely left to deal with; but the danger to the public involved in a system which everybody must feel and resent. Unfortunately the evil is more obvious than the remedy. The only practicable remedy, we are afraid, is the slow one of public enlightenment.

it, which might be a good deal assisted, perhaps, by the display of chemists' diplomas in some conspicuous part of the dispensary. If this were made a rule of the trade, the public would soon understand that the absence of the diploma meant the absence of the qualification, and would then carry their prescriptions elsewhere.

The *Bradford Observer* says :—

The drug trade, it appears, is in a bad way, so far at least as the professional dealers are concerned; and one of the chief reasons for this unpleasant phenomenon is said to be the extensive appropriation of the trade by those who have not undergone proper training. These unqualified dealers, it is told, sell inferior and adulterated drugs, to the injury of the public. The remedy proposed is to forbid sale of drugs by any but duly examined and qualified pharmacists. Considerations might be inclined to doubt whether this would afford absolute security against adulteration. Furthermore, it would be extremely difficult to define drugs in an Act of Parliament, and unreasonable to provide that in country districts no shopkeeper should be allowed to vend castor oil or linna or other simple medicines. If the Legislature imposes penalties for adulteration, and forbids the sale by unqualified persons of the more dangerous drugs, it goes as far as pharmacists can reasonably expect.

A summary of Professor Attfield's address appeared in the *Edinburgh Advertiser*, and "An Old Chemist" afterwards wrote the paper saying that he was not convinced that the sale of medicine is diminishing, or that the business of chemist or druggist is in the languishing condition represented. "I admit that there are not so many chemists to the population as there have been, but, so far as my information extends, the diminution is confined to the lowest class of shops—those dirty, miserably-furnished, poorly-stocked, poky places which used to abound in the poorer parts of our large towns and cities. The disappearance of these no one need regret. A sound conclusion on the question as to whether the sale of medicine is increasing or decreasing may be reached by looking at the position of the wholesale trade. Now, I find that thirty years ago there was in Edinburgh but one wholesale drug-house. That house is still in a flourishing state, doing as much business, I understand, as it ever did, although there are now five other houses all apparently doing well. It is not likely, in my opinion, that the sale of medicines will to any appreciable extent fall in the hands of the general trader. Take the ounce of rhubarb, to which reference has been made, and I venture to say that there is not one general trader in your town who could distinguish between the English variety, which can be had at 1s. per lb., and the East Indian, costing 7s. I was in the store of one of those general traders in the 'Second City' three weeks ago, when a difficulty occurred as to the contents of a parcel of a white powder from which the label had been torn off. One assistant thought it was borax, and another thought it was Rochelle salt. I suppose that but for intervention the decision on the point would have been given on the lines of Solomon's judgment in the case of the falsely-claimed child, that is to say, half of the contents would have gone into the borax drawer and the other half in the Rochelle-salt drawer. It may do well enough for grocers to sell such nostrums as Siegel's syrup and hop bitters, but where they go beyond these they are out of their depth.

The *British Medical Journal* says :—

Professor Attfield has made out a strong case in favour of an immediate amendment of the Pharmacy Act of 1868. A general impression has hitherto prevailed that the Pharmacy Act prevented the sale of powerful drugs, or the dispensing of prescriptions by any but properly-educated and publicly-authorised persons. Dr. Attfield authoritatively informs us that the public have really no reliable guarantee that the shopkeeper who sells drugs or undertakes the compounding of prescriptions is qualified for his respectable and hazardous work. Anybody, as the law at present stands, is at liberty to hang a red lamp over his door and to fill his window with the orthodox bottles of coloured water; and, providing only he does not incur penalty by calling himself a chemist and druggist, to sell drugs and poisons without restriction, and to "make up" prescriptions with impunity. This practice is grossly unfair to the honestly-educated and duly-certificated chemist, and

it constitutes a grave and widespread public peril, which cannot be suffered to continue. It is obviously necessary, both for public safety and for the protection of the qualified chemist, to amend the Act of 1868, so that it may really accomplish the purpose for which it was ostensibly passed. It is not sufficient that an unqualified and unregistered tradesman shall be prevented from assuming the name of chemist and druggist; he must also be effectually restrained from selling drugs and compounding medical prescriptions.

The *Medical Times and Gazette* says :—

Dr. Attfield's address contains a large amount of carefully-gathered information, and deserves to be thoughtfully read by everyone. In the more part of what he says we entirely agree with him; but, unless the public at large can be seriously aroused to a recognition of the evils he points out, it will be to the last degree improbable that the present Government will trouble themselves about the matter.

The *Lancet* says :—

It is obvious that the supply of drugs uncontrolled by the State is seriously prejudicial to the interests of the public. Eliminate special technical knowledge from pharmacy, and let drugs be sold by any or every shopkeeper, and the public will have no guarantee that they are not supplied with drugs fair in appearance to the untrained eye, but in reality worthless; drugs which once perhaps were of good quality, but which, without altering in appearance, have become spoilt by age; medicines weaker than they should be, medicines stronger than they should be; poisonous fluids for external application not properly distinguished from those for internal administration; indeed, the public will have no guarantee that they are not supplied with the wrong medicine altogether.

No one, says the *Medical Press and Circular*, will question the existence of the mischief complained of, or fail to agree that amendment of the legislation which permits it is called for; but to the grounds on which Dr. Attfield defends the cause he is called on to plead exception must in more than one instance be taken. The public has long complained of the exorbitant charges made by chemists for the medicines they dispense from prescriptions, and in recent years advantage has readily been taken of opportunities afforded at co-operative stores and elsewhere for getting the dispensing more cheaply performed. The advice is then given to every chemist to denominate the charge for a bottle of medicine as his *fee*; and herein he is, we venture to think, guilty of an error which, in principle at any rate, pervades his whole reasoning. He contends that, inasmuch as the chemist must precede registration by a definite period of study, and conclude the latter by an examination which tests his fitness to be a dispenser, that therefore he is placed at once on a level with the professors of medicine and law. We do not wish to discuss how far the assumption could be maintained, but we do desire to point out a radical distinction between doctors and chemists, a distinction Dr. Attfield has apparently forgotten. The doctor receives a fee for his opinion and directions (including prescription) to his patient, and—omitting for the moment home prescribers—no transfer of material from practitioner to patient precedes the payment of the former. The chemist, on the contrary, receives payment for the articles he sells, with a percentage for the trouble he is at and the knowledge he displays in arranging them in the particular manner required by his customer. To call his remuneration a fee would be to deprive the term of all special significance, for as much justice would be in the demand of the hairdresser to be paid for cutting one's hair skilfully, or of the grocer for tying up one's tea neatly, or of the tinker for mending one's tea-kettle deftly. We may come yet to see a chemist's account made up of items after this fashion: "Medicine, 3d.; dispensing ditto, 1s. 3d.," and so on, an absurdity that could harm none so much as the pharmacists themselves.

There is also one point particularly on which medical men are fairly entitled to express an opinion adverse to chemists. The term "prescribing chemist" is now so familiar that it would probably be difficult to name a member of the Pharmaceutical Society who does not deserve to have it applied to him. Dr. Attfield, it is true, attempts a sort of apology for this practice; but his attempt must be, even to

to himself, very unsatisfactory. He says that the chemist only temporarily treats an applicant for relief, always directing him to a qualified practitioner. We regret to say we have frequently seen this counter-practice in progress, but never have we been fortunate enough to hear such advice given as that Dr. Attfield describes.

The *Daily Chronicle* says:—

As the Pharmacy Act was passed for the protection of the public against the dangers arising from careless dispensing and the sale of worthless drugs by ignorant vendors, and as the Act has failed to ensure this protection, an amendment of it in the direction indicated by the President of the Pharmaceutical Conference is evidently needed.

The *Morning Advertiser* says:—

With many points of Professor Attfield's address we are able to agree, but there are many other points which have to be criticised from a much broader standpoint than that upon which they were dealt with by the speaker. By all means let us have any measures which may be deemed necessary in order to secure the public against fraud in what, after all, is the most important article of commerce after food. This security is afforded by the existence of qualified chemists, and those people who wish to make sure that the prescriptions of their physicians are accurately dispensed will doubtless avail themselves of the knowledge and skill of the qualified persons who hold certificates of competency. No one in his senses who requires a dangerous drug, or an accurately-compounded prescription, would ever dream of going to anybody but a properly qualified chemist, whereas there is no need of the skilled retailer for the sale of Cocker's pills. That is the distinction we draw between the two cases. There are drugs which any man may sell without any possibility of danger to the public, and there are other drugs which can only be sold by persons familiar with their nature; and in the ordinary course of things the latter class of drugs are those for which people would naturally go to a qualified chemist.

The *Morning Post* says:—

The doctrine of free trade in drugs, which some persons advocate, runs on curiously parallel lines with the general principles of so-called free trade by which the commercial affairs of this country are regulated, and its operation presents equally anomalous results. The British producer is compelled to fight his foreign competitors, even in British markets, with his hands tied; and in like manner the registered pharmacist, after being required to undergo a special training and pass a State examination, is exposed to the competition of traders who are allowed to practise his profession without having incurred the trouble and expense of qualifying for it. Whether the remedy recommended to the Pharmaceutical Conference—viz., to render illegal the retail sale of the simple and compound drugs of the British Pharmacopœia by any but registered chemists and druggists or medical practitioners—is not too drastic in so far as it affects the vending of patent medicines may be open to doubt, but it has at all events the double merit of simplicity and thorough efficiency.

The *Globe* says:—

What is required is, obviously, to alter the Act of 1868 so that it may fulfil the intention with which it was passed. The unregistered tradesman must not only be forbidden to assume the title of a druggist, but he must be effectually restrained from selling drugs.

THE IMPORTATION OF CARBOLIC ACID into Holland, either in liquid or solid form, is henceforth, according to an order of the Netherlands Finance Minister, to be permitted duty free.

HALF-PENNY POSTAGE-STAMPS FOR RECEIPTS.—A correspondent of the *Times* writes that, desiring to know for certain whether two halfpenny postage stamps might be legally accepted in receipts for payments of and above 2*l.*, he has communicated with the Commissioners of Inland Revenue, and received the following answer:—"Inland Revenue, September 22.—Sir, In reply to your letter of the 18th inst., I have to acquaint you that, under the 13th section of the Act 45 and 46 Vict. c. 72, two halfpenny postage-stamps may be used to denote the duty on a receipt. —I am, sir, your obedient servant, F. L. ROBINSON."

THE SALE OF POISONS.

DISCUSSION AT THE SOCIAL SCIENCE CONGRESS.

ONE of the subjects dealt with at the recent meeting of the Social Science Congress at Huddersfield, was the sale of poisons. This was treated in the Crimes Section of the 8th inst., by papers from Dr. Meymott Tidy, and Mr. G. L. Browne, the first from a medical and the second from a legal point of view, replying to the question "Can the sale of poisons be regulated so as more effectively to prevent their employment for criminal purposes?"

Dr. Tidy gave at considerable length very clear and definite views on the subject. He said, "The sale of poisons is a subject which has attracted much of the public mind, and the laws concerning the sale and employment of poisons are numerous. Then he asked how far the objects of the legislature in the crime were served by the present state of the law regulating the sale of poison? On this point he said, "We cannot prevent, by any possible legislation, poisons from getting into the hands of those who have made up their minds to get them and to use them improperly. We can only do our best to throw the greatest possible difficulties in the way of their obtaining them, and to impose such conditions that in the event of their criminal employment, we have at any rate some chance of discovering the perpetrator. Perfect efficiency is impossible. Nor do I think it is a matter, knowing the absolute impossibility of perfect legislation, that we should attempt to over-legislate. On the one hand, over-legislation would draw an amount of attention to a subject which, in my humble judgment, speak with not a little experience, the less known by the general public the better; whilst to the educated and well-informed other difficulties may arise. Things may be said, this, that we shall be afraid to live for fear we die."

And now for the Act regulating the sale of poisons. The word poison, I have said, is not defined, but the articles designated as poisons within the meaning of the Act are scheduled.

I object *in toto* to this scheduling. It serves to draw attention to a number of drugs that had much better be forgotten. The schedule is a most remarkable document. It is, I said, divided into two parts. When the poisons enumerated in Part I. are sold, the buyer must be shown the seller, or be introduced to the seller by some person known to him, and detailed entries in the poisons book are required—whilst in the case of poisons under Part II., such precautions are deemed unnecessary. Let me give you an example. If I go to a chemist and ask for some emetic tartar (a poison undoubtedly, but one that, owing to its emetic properties, as often fails to kill as not), either it must be known to the chemist, or I must take an introduction to him from someone that he knows. In such case, if he enters in his poison book my name and address, or my name and address I choose to give him, the name and quantity of the article sold, and the purpose for which I choose to tell him I want it—all of which details must be duly attested. But if I go to him for some opium, such precautions are needed.

Again, if I go to a chemist for some corrosive sublimate or morphia, or for some cantharides, I must be known to him, or introduced, and due entries recorded. If I ask for a preparation of corrosive sublimate or for a preparation of morphia (and a preparation may contain any percentage of the active agent), or for some tincture of cantharides, I need not be known nor introduced, nor will any written record against me be preserved.

Again, all poisonous vegetable alkaloids and the salts are (very rightly) included in Part I. But the force of this is lessened by a few vegetable alkaloids being specially named (viz. aconite, atropine, strychnine), all other poisons are included in the phrase poisonous vegetable alkaloids. Well, it may be argued, there is no harm in this. But there is this harm, that there are certain poisons specially named, and the naming some and not others is undoubtedly a disadvantage.

The exact meaning of the word preparation is not defined. Anything may be held to be a preparation of a substance. Preparations of prussic acid are, for example, specially named, a phrase to my mind far from explicit. The salt of a substance is often termed in ordinary language a preparation of that substance. Thus sulphate of

mit be and often is termed a preparation of morphia. At nine and its preparations are included in Part I. Belladonna and its preparations in Part II. Morphia would be included amongst the poisonous vegetable alkaloids in Part I, though why it should not be specially named I don't understand, seeing that strychnine and atropine are; the latter, therefore, must be personally known or introduced. But in the purchase of preparations of morphia no such precautionary measures are demanded.

The schedule errs by sins of omission. I shall not be accused of egotism if I claim some experience for many years, as a pupil, assistant, and colleague of Henry Letheby, and since his death on my own account, with the subject of poisons and poisoning. Recalling a personal experience of a good many years, it is remarkable that the two poisons which in my experience have been used more frequently, and usually and homicidally than any others, and two poisons, moreover, of the most deadly nature, are not included in the Schedule at all. I refer to carbolic acid and phosphorus.

What remedy have you to suggest? I answer, Define a poison, accurately and scientifically, and omit the Schedule. It is unadvisable as a preventive measure (I am convinced) to publish a list of poisons. Whilst if such a list is prepared, no matter how carefully, it is sure to offer abundant material for legal quibbles.

What has been the result of all this scheduling and this Part. and Part II. legislation? That the Act is at the present time not carried out in its entirety, and I almost venture to say is an impossible Act to be carried out. Strictly it was not carried out, even by one of the chief of London pharmacists, in the purchase of the aconitine used with such fatal effect by Lamson. The fact is anybody (with a little trouble, perhaps, but with very little) can get almost anything they want, and in almost any quantity. Fancy a woman being able to purchase five pints of laudanum at one op. I tell of that I can vouch.

Or legislation has in this case proved under-legislation. Simply, I say, the whole thing. Define a poison, and then omit all schedules of names. Require that the sale shall be the act of a pharmaceutical chemist only and require the pharmacist to keep a record of the sale, the person's name and address, and the object as stated for which it is required. The pharmaceutical chemist of to-day, it must be remembered, is an educated man, and legislation must be intelligent legislation, applicable to intelligent and educated pharmacists. Enough records must be kept to throw difficulty in the way of persons procuring poisons for improper purposes, but not too many records, lest too many may mean in the long run none at all. Further, it may fairly be taken for granted that with the present race of pharmacists some judgment will be used in the sale of poisonous preparation or which judgment no Act of Parliament can provide. It would be absurd to apply poison regulations to such things as a plumb plaster or a Dover's powder, or medicinal doses of *ty. creta*, *c. opio*, a paregoric—all of which are preparations of the poison opium. Any legislation is sure to fail unless you credit the pharmacist with a certain amount of common sense in his commercial proceedings.

Dr. Tidy's definition of a poison would be "anything which otherwise than by the agency of heat or electricity, is capable of destroying life either by chemical action on the tissues of the living body, or by physiological action from absorption into the living system."

Dr. Tidy would have the pharmacist keep a record of all sales of poisons as now, and he would only suggest in regard to labelling that the label should be a red one. He would apply the regulations to medical practitioners, veterinary surgeons, wholesale druggists, and dysalaters. He would have the Royal College of Physicians and the Pharmaceutical Society agree together as to special bottles and labelling for poisons, &c., and he would prohibit altogether the sale by grocers, oilmen, and others of the various vermin-killers, phosphorus paste, sheep washings, agricultural solutions, carbolic acid, &c., and savin, lobelia, &c., by herbalists.

Let us, he urges, with much earnestness, that regulations for selling poisons should be agreed to, such as were proposed by the Pharmaceutical Council in 1869. He believes no system of espionage would be necessary, and he would make the regulations apply to medical men who compound as well as prescribe, to veterinary surgeons, and to wholesale druggists as well as to pharmacists.

Mr. BROWNE is one of the authors of the volume on "Trials for Murder by Poisoning," lately reviewed in this Journal. His contribution also gave a summary of the existing law and of the proposals made in the Pharmacy Acts Amendment Bill as regards the sale of poisons. He entirely supports the proposals respecting patent medicines, and he would go further and permit no secret medicine to be sold unless it had been approved by a Government official, as is done in Japan. He also agrees with the circular issued by us that carbolic acid should be among the poisons to be sold only by certified chemists.

The following discussion ensued:—

Dr. BENDELACK HEWETSON, London, said that some restriction should be placed upon the sale of quack medicines, many of which contained deleterious drugs, and also upon the wholesale sale of poisons for manufacturing purposes, for if the lives of workmen engaged in such manufactures was not absolutely threatened great injury was often done to their general health.

Mr. RICHARD SMITH, Lynn, referring to Dr. Tidy's proposal to abolish the schedule of poisons and substitute for it a definition, said the question of internal or external use would have to be considered; for instance, all anilines would be essentially poisons if taken internally. If the schedule were done away with and each chemist left to form his own judgment as to what was, or was not, a poison, the latter would be under a constant temptation to please his customers by making as few inquiries as possible. What was a poison on one side of the street might not, perhaps, be a poison on the other, and trade would naturally flow to that chemist who made least difficulty about supplying his customers with what they wanted. He agreed that general practitioners and veterinary surgeons should be made to submit to some kind of restriction; and he would even go further than Dr. Tidy had suggested in cases where a prescription contained a deadly poison. He would make it compulsory upon the general practitioner to have it dispensed by a certified pharmacist.

Mr. MICHAEL CARTEIGHE, President of the Pharmaceutical Society, said that Dr. Tidy looked at the question more from the point of view of the Public Prosecutor and analytical chemist than from that of practical, everyday life. In a country in which poisons were used to such an enormous extent for manufacturing purposes, it was practically impossible to achieve perfect safety with the sale of them. Dr. Tidy had lost sight of the lines upon which legislation had hitherto been conducted with reference to this subject. It had been laid down as a principle, not only by the advice of the Pharmaceutical Society, but also by the medical advisers of the Government, that it was impossible to prevent criminal poisoning any more than one man could be prevented from shooting another. The aim of legislation had not been to prevent criminal poisoning, but to provide every facility for bringing the offender to justice. The chief security against the sale of poisons for criminal purposes lay in the intelligence of the seller. In France the law with regard to the sale of poisonous drugs was very much what Dr. Tidy would make it; but from his (the speaker's) inquiries among French pharmacists he found, as he expected, that it was practically evaded with the tacit consent of both buyer and seller.

Dr. TIDY, in reply, admitted the force of the objection raised by Mr. Smith to the abolition of the schedule, but said that the question resolved itself into a balance of difficulties. If the sale of poisons was taken out of the hands of herbalists, quack doctors, grocers, and oilmen, and limited to qualified pharmacists, he thought that the latter might be intrusted with as much freedom in the use of their individual judgment as was consistent with their improved education as a body.

BARROW EVANS (LIMITED).—A prospectus of this company has been issued, capital 50,000*l.* in shares of 1*l.* each. Incorporated to manufacture and sell Barrow Evans' hair restorer, and other specialties. The purchase money is 25,000*l.*, two-thirds in fully paid-up shares. The vendors guarantee a dividend of 10 per cent. for three years. The first directors are Messrs. Samuel Saddington, of Saddington & Co., John Lorimer, of Lorimer & Co., Wm. Higginbottom, J.P., Joseph Allen, Captain J. W. Clarke, and Edwin Belfield.



OFFICE—42 CANNON STREET, LONDON, E.C.

“SANITAS.”

THE BEST DISINFECTANT.

Non-Poisonous. Colourless. Gives no Stain. Fragrant.

Fluid; Oil; Powder; Hard, Soft, Brown Windsor, and Toilet Soaps; Ointment; Veterinary Ointment; Tooth Powder; Toilet Powder; Toilet Fluid; Furniture Cream; Antiseptic Gauze; Fumigators.

THE SANITAS DISINFECTANTS ARE IN USE BY 600 PUBLIC HEALTH BODIES.

Liberal Terms, Show Cards and Bills to the Trade.

Sole Manufacturers, The “Sanitas” Co., Limited, Bethnal Green, E.

SEE SEABURY & JOHNSON'S Advertisement of INDIA-RUBBER POROUS AND SPREAD PLASTERS on page 139.

ANALYTICAL CHEMISTS. See page 40.

MEDALS LONDON 1873 PARIS 1875
MUMFORD'S
PURE CRUSHED LINSEED

10s. per cwt. net, bag included; in 7, 14, 28, 56 lbs., 20s. per cwt., delivered free in London, and in Tins, 4s. per doz. BEST QUALITY; NO OIL EXTRACTED. Carefully cleaned and ground so as to retain the natural colour of the Seed without being heated.

MUMFORD'S
PURE STARCH POWDER

Per cwt., net., 28s., delivered free in London, in 7-lb., 14-lb., 28-lb., 56-lb. and 1-cwt. Bags.

MUMFORD'S
PURE FULLERS EARTH

Finest powdered, 14s. per cwt.; in 7, 14, 28, 56 lb. Packages, 16s. per cwt., delivered free in London. Samples post free.

G. S. MUMFORD, STEAM MILLS, FARRINGDON ROAD, LONDON, E.C.

SCHIEFFELIN'S SOLUBLE PILLS. See page 122.

HERBERT & GODFREY'S Aqua Crystal Spectacles } See page 37.

◆◆◆◆◆ All Chemists are invited to apply for a Copy of our
WHOLESALE PRICE LIST OF
HOMŒOPATHIC MEDICINES,
Mother Tinctures, Pilules, Globules, Sugar of Milk,
Medicine Chests and Cases, Bottles, Cardboard Goods, and
all Sundries connected with the Homœopathic Business.
W. BUTCHER & CO.,
WHOLESALE AND EXPORT HOMŒOPATHIC CHEMISTS,
315 Regent St., W.; & Spencer Place, Blackheath, S.E.
◆◆◆◆◆

SCHWEPPE'S MINERAL WATERS

CARRIAGE PAID
On Full and Empties.

AS
SUPPLIED

TO HER MAJESTY

THE QUEEN.

TRADE ADVERTISEMENT.

PRICE LIST ON APPLICATION.

51 BERNERS STREET, LONDON.

INK AT WHOLESALE PRICE. See page 44.

HAY'S SOLUBLE ESSENCE OF GINGER. See page 48.

HAY'S GINGER CHAMPAGNE. See page 48.

HAY'S SOLUBLE ESSENCE OF LEMON. See page 48.

EDITORIAL NOTE.

THE BRITISH PHARMACEUTICAL CONFERENCE.

PROFESSOR ATFIELD'S address was again the leading feature of the meeting of the British Pharmaceutical Conference. In itself it was an innovation—the first of the series that has dealt directly with pharmaceutical politics. Contrary to precedent, members rose one after another to discuss it, though the battle was all on one side. Those who disagreed with it evidently felt the fetters of custom, while its adherents luxuriated in its elaborate dolefulness. The last word has not been said about it. Its success in gaining the ear of the press has been astounding; but this passing newspaper fame has been won at some cost to the scientific character which the Association had previously won. The address has committed the Conference—a purely scientific and social body—to a course of political action; though it has been dexterously veiled by a proposal that individual members should be the agents for distributing copies of the address to their local members of Parliament, the cost of printing being defrayed by the Conference funds. It is to be hoped, too, that any future President who feels inclined to deal in his address with debatable matters will invite discussion. It is delightful to hear from the pen of an admirable expression of our private convictions, that the convictions are not our own the process becomes like that test of Christian virtue, the endurance of a “contradiction of sinners in high places.”

Both of the address and of the social work of the Conference we have spoken elsewhere. We will only add again our growing conviction that a fixed charge to each member

all entertainments would do much to strengthen the Cerecne on its social side.

the scientific work was up to the average, and in many directions indicated a real advance in knowledge. A report by R. A. H. Jackson, B.Sc., showed that a tedious and costly investigation had yielded disappointing results. The oil of cinnamon and cassia are chemically so much alike that it seems hopeless to look for any test that will distinguish them. This, however, is a gain, though a negative one.

Mr. H. G. Greenish has begun a research on the bitter principles of the sweet-scented oleander, an Indian shrub. The next two reports were by Messrs. W. R. Dunstan, F.C.S., and F. W. Short. Ferrocyanide of strychnine crystallises completely from dilute acid solutions of mixtures of the alkaloids strychnine and brucine, the latter remaining in solution. By a second crystallisation the strychnine ferrocyanide can be obtained perfectly free from brucine. On this fact is based a process for quantitative separation and estimation of the two alkaloids. An interesting by-product of the research was the observation that the ordinary bicarbonate and sulphuric acid colour-test for strychnine was quite unreliable in presence of large quantities of brucine. The second report showed with new emphasis the previously established fact that commercial tincture of nux-vomica varies enormously in its alkaloidal strength. Professor Quin opened endless vistas of discussion in his paper on effluvia. He had tried the preservative effect of tamping fresh medicinal herbs in bottles, sealing them hermetically, and drying them. The results, so far as they go, are satisfactory, but it was pointed out in the discussion that the professor's process, whatever it might be, was not complete. The latter requires for perfection the admission of air and a certain degree of fermentation; both were rigorously excluded in his experiments. Tinctures, the use of alcohol in preserving juices, the legitimacy of substituting one acid for another, better in the dispenser's opinion, and other topics of discord were freely scattered on the arena, but judiciously gathered up by the President. The mullein plant was next introduced as a curative or palliative remedy in cases of phthisis, and again the Professor emphasised his nationality by a curious little historical disquisition, showing that its use was unknown in Ireland before the advent of the Saxons. Mr. W. A. H. Naylor has advanced our knowledge of the bitter principles of *Hymenodictyon* some steps further, and is continuing his investigation. Mr. Willmott gave the results of a long series of experiments on ointment bases, which had extended over four or five years. The point chiefly dealt with was the comparative permanence of ointments when made with different bases, the question of therapeutic efficacy being left untouched. The author was not satisfied with any ointment which would not keep good four or five years, though most pharmacists would be less exacting. For most purposes a compound of yellow wax and oil and the petroleum bases are least liable to change. The latter, contrary to general opinion, are found to develop an unpleasant odour and at times have an irritant effect on tender skins. Next to these comes benzoated lard for general use; lard prepared in different ways and mixtures of white wax and oil are much inferior. Mr. Siebold waxed eloquent in comparing the tests for the strength of hydrocyanic acid in order in the British and United States Pharmacopœias. The latter substitutes magnesia for soda, and continues the titration with decinormal nitrate of silver solution till the whole of the cyanogen is precipitated as silver cyanide, requiring twice as much of the volumetric solution. This is the chief advantage of the process, which will not be replaced by that of the British Pharmacopœia. Mr. Stanford

has taken up the question of the presence of iodine in cod-liver oil, and is extending it. He finds that the results given by most previous investigators are much too large; that cod-liver oil does contain iodine, cod liver more, and codfish still more. Herrings and all other fish as yet examined yield iodine, and Scotch herring is perhaps the richest source known for it. Mr. M. Conroy and Mr. Maben then reported on the suitability of sesame oil for pharmaceutical purposes. For most of these it is too limpid, yielding lead plasters too soft, viscid, and rapidly rancidifying. It seems likely to serve as a substitute for almond, but not for olive, oil. Mr. Holmes communicated some new information he had received from Mr. Jamie, of Singapore, concerning the source of Siam benzoin, and exhibited some beautiful specimens. Mr. Dott has reinvestigated the state of combination in which morphia exists in opium. He believes that the sulphate, meconate, and perhaps the acid meconate are all present. Mr. A. C. Abraham added another to the unnumbered list of papers on what Professor Atfield calls the chameleon of pharmacy—sweet spirit of nitre. He doubted the assumption that the British Pharmacopœia process owed its virtues to the formation of nitrous acid, and suspected that the increase of the boiling-point, owing to the presence of sulphuric acid, gradually modified as the process continued by the combination of the acid with the copper, and the gradual liberation of the nitric acid from copper nitrate were really the two causes of the steadiness of action and uniformity of temperature which characterise it. He tested this by various experiments, and proved his position. In the discussion that followed Mr. Williams showed clearly that sweet spirit of nitre was a simple solution of neither nitrous ether nor of aldehyde, and suggested that it was more probably a solution of paraldehyde, a polymeride of aldehyde, three volumes of which are condensed into one of the new body. Mr. E. Davies read a useful paper on asphalts and pitches of commerce, supplying data which will make their identification easier. Mr. Siebold next described a new process for preparing a palatable dose of pomegranate for use as an anthelmintic. Six ounces of the powdered drug are exhausted with 7 pints of water, treated with lead to remove the organic acids, the lead precipitated with sulphuretted hydrogen, and the clear solution then evaporated down for a single dose. If this preparation comes into general use, and has to be freshly made when required, good times are coming for pharmacy, as the President suggested. Mr. Conroy had just met with so-called virgin scammony, which was adulterated or rather falsified by the addition of a large quantity of resin made from the root. This is easily recognised by its characteristic leathery odour. Mr. T. B. Groves, stirred up by Dr. Squibb's paper "On the Pharmacy of Aconite," wrote to urge the adoption of crystalline nap-aconitine from *Aconitum napellus* as the basis of all pharmaceutical preparations. He showed how it might be isolated, and suggested the manufacture of a series of preparations of it guaranteed by physiological experiment. He omitted to notice the question, if all the medicinal virtues of aconite-root are contained in nap-aconitine. Messrs. Davies and Schmidt had critically examined Dr. Easton's formula for his syrup, and found that the quantities ordered could not possibly yield the amount of quinine and other ingredients claimed to exist in good samples of the syrup. A sample made strictly according to the formula was found to yield nearly the amount required by chemical theory. Commercial samples were found to vary considerably, one containing thrice as much strychnine as it ought. Mr. A. W. Gerrard has separated and investigated the odorous principle of henbane leaves. He finds that it

contains butyric acid, and is probably either a butyric ether or a butyrin.

The election of the officers for the ensuing year resulted in the choice of Mr. John Williams, F.C.S., as President, a choice which has already proved its popularity. Hastings was selected as the place of meeting for 1884. Aberdeen will probably be chosen for 1885.

A COLLEGE PHARMACEUTICAL COURSE.

THE Owens College, Manchester, has just published the prospectus of the Pharmaceutical Course established there. It is adapted to the requirements of pharmaceutical students. The instruction will be chiefly practical, and will be given in the laboratories of the College. The course will be divided into two parts, which may be attended in consecutive sessions: 1, chemistry and botany; 2, materia medica, pharmaceutical chemistry, and pharmacy. There will be both day and evening classes in chemistry and botany, evening classes only in the other subjects unless a sufficient number of students present themselves.

The evening classes in chemistry are divided. Prof. Roscoe takes the non-metallic elements on Mondays at 8 p.m. Mr. Arthur Smithells, B.Sc., takes the metals on Fridays; fee for both courses one guinea. Practical chemistry, for the first year's course, is taught on Monday and Friday evenings from 6 to 8 p.m., fee four guineas. Botany is taught by Prof. Williamson on alternate Wednesdays at 7 p.m., fee one guinea. Materia medica and pharmacognosy are taught by Prof. Leech and Mr. W. Elborne on Tuesdays and Thursdays at 8 p.m., fee one guinea. Mr. W. Elborne will lecture on pharmacy and dispensing on Wednesdays and Thursdays at 6 p.m., the instruction being practical, and including the manufacture of all classes of pharmaceutical preparations, prescription reading, and dispensing; fee three guineas. Pharmaceutical chemistry will be taught by the same gentleman on Mondays and Fridays at 8 p.m., fee one guinea.

The introduction into a College course of complete instruction for pharmaceutical students is a new and practical step worthy of the traditions of Owens College. It has, perhaps, more real significance for the future of pharmacy than many of the schemes elaborated with so much discussion in the very nest of the profession. It either is a sign, or will be a cause, of a real elevation of the status of pharmacists.

AMERICAN PHARMACEUTICAL ASSOCIATION.

THE meetings of the American Pharmaceutical Association were just concluding when our last number left the press. It was held at Washington, the meetings taking place at the Smithsonian Institution. The proceedings lasted from September 11 to 15; one three-hours' session was held each day, the rest of the time being given up to what the circular calls "accessory pleasures." On the first day the President's address was delivered after a welcome by General West, Commissioner for the District of Columbia, the ladies being entertained by a special visit to Corcoran's Art Galleries. A concert was given in the evening. On the second day came election of officers, reports of committees, with a visit to the Pharmaceutical Exhibition at the National Museum, a visit to the Sailors' Home and Park, and a ball and reception in the evening. On the 13th there was a visit to the U. S. Treasury, Patent Office, and other Government buildings, with an afternoon session for the reading of papers, followed at half-an-hour's interval by a banquet—*menus* printed on satin; later in the evening was a ladies' special

entertainment, music, singing, reading, and ice-cream. Next day there was a morning session for reading papers, excursion down the Potomac to Mount Vernon, Washington, with an entertainment provided by the Washington Chemists. On September 15, "home, sweet home, and excursions," Mr. R. J. Seabury has sent us specimens of the advertisement coupon tickets, and other matters printed for the Entertainment Committee, of which his brother is a moving spirit. About 260 members attended the meetings, which were presided over by President Heinitsh. The Committee on Legislation reported the unconditional repeal of the San Francisco Drug Law, which applied to the city and county, and had been passed in 1876. The new President, Mr. W. S. Thompson, of Washington. The Treasurer reported a balance in hand of \$4,196.58 in the general fund and \$329.51 in the special funds. The Ebert prize was bestowed on Prof. J. U. Lloyd, for his paper on "Fluid Extracts." Another was referred to the Council to ask Congress to spend \$25,000 "on the introduction of foreign medicinal plants and the better protection of native medicinal plants." The Association has decided to deposit its collection in the National Museum. A committee was appointed to collate unofficial formulæ. The report of the Entertainment Committee occasioned a long discussion, and finally it was resolved that hereafter the Committee's program must be submitted to the Council for approval. The Committee was not re-appointed, the matter being left to the Council but it is thought that it will be difficult to persuade competent men to accept the somewhat thankless office. Nineteen papers were read, but although a report has reached us from Professor Bedford, it is crowded out by matters nearer home. The museum contained exhibits from fifty different firms, and was well attended.

THE PROPOSED INTERNATIONAL PHARMACEUTICAL CONGRESS AT BRUSSELS.

THE *Journal de Pharmacie d'Anvers* publishes in its issue for September the official report of a meeting of the Association Generale Pharmaceutique de Belgique, held at Brussels in November, 1882. We do not mention it as an illustration of journalistic enterprise, but on account of a passage in the report relating to the proposed International Pharmaceutical Congress, which it has been proposed to hold in Brussels in 1884. This resolution was mentioned in the report "not without a certain pride," and it was proposed to apply to the Government for grants towards the expenses of the assembly. The Government had, it appears, made a grant for the International Medical Congress in 1879, and had promised one for the International Veterinary Congress of 1883. One of the speakers, however—M. van de Vyvere—in discussing the subject referred to several other congresses towards which the Government had declined to contribute, and he believed that without a grant they would find themselves in such difficulty that he thought it would be worth considering whether they should not ask that the organization of the Congress should be transferred to the pharmaceutical association of a State more important than Belgium. M. Gille, who was one of the Belgian delegates in London, remarked that it was the foreign members of the Congress who decided to meet at Brussels, and that they so decided in spite of the protestations of the Belgian delegates, which were lost amid the general acclamations. On his suggestion, however, the matter was referred to the committee to see what could be done.

We know not who is the "organ" of the Congress, but we do know that to many who would go from England and

be very preferable not to be "entertained." The amuse-ment system is the blight on all such assemblies, and these will never be truly successful until it is rigidly dis-continued. A local committee to draw up a pro-gramme and make arrangements is of course desirable; but each person taking part in the proceedings should pay his fair share. In those congresses where this is done large suc-cess has been attained, and an occasional, even an annual, gathering of European pharmacists conducted on such a plan would be pleasant and profitable. But it cannot be permanent if the burden, so light if distributed, is thrown upon a section, including many uninterested in the objects of the congress.

THE HANBURY MEDAL.

We are very glad that the Hanbury Gold Medal, the highest distinction which can be conferred on a pharmacologist as such as been this year bestowed on Mr. John Eliot Howard. After the death of Daniel Hanbury, in 1875, it was considered that an English official memorial of him was desirable. He died, without dispute and almost, it seemed, without effort, during his life the highest position in the world as an authority on materia medica. He had done so much to advance and spread the knowledge to which he had devoted his great abilities and opportunities, that it was impossible for living pharmacists not to mark by some memorial their sense of appreciation of his labours and respect for his memory. The method chosen was excellent. A sum was raised sufficient to yield some 20% to 25% every two years, and with this a handsome gold medal is awarded to the man who is considered to have done the best work in original research in the natural history and chemistry of drugs. The first medal was awarded in 1881 to Professor Flückiger, who had been Mr. Hanbury's colleague in some of his most important work. The selection is made by the Presidents of the Chemical, Linnean, and Pharmaceutical Societies, and of the Pharmaceutical Conference, with one pharmaceutical chemist. They are to choose from the wide world those who have any knowledge of scientific men of the present day will recognise that there is more danger of such a committee giving an undue preference to foreigners than Englishmen. In selecting Mr. Howard they have made the choice which pharmacists all over the world will endorse. Mr. Howard's studies of the cinchonas have been so thorough, so minute, and so intelligent, as to make them of the highest importance, not to pharmacy only, but to the wealth and benefit of the civilised world. His co-workers in the same field would be the first to acknowledge the inestimable value of his scientific labours, directed as these have been to a practical knowledge of what was aimed at.

In presenting the medal to Mr. Howard, on October 3, the President of the Pharmaceutical Society said: "He had before him three volumes with which Mr. Howard was more or less identified, and in one of them there were illustrations and a description of no less than forty-two species of cinchona. These, with many others, had been studied by Mr. Howard for many years at an enormous expense, for the benefit not only of those who were interested in pharmacology at all mankind. For, having regard to the value of the barks themselves, and the alkaloid quinine, it would have been impossible for the Government of India and the private growers of bark in Ceylon to have carried on their operations with satisfaction and certainty, if they had not been assisted from first to last by Mr. Howard, and the skill he had brought to bear upon the whole subject."

Mr. Howard said, in acknowledging the honour, "he was particularly gratified at receiving this medal, because it reminded him of the great assistance and sympathy he had

received from the illustrious man in whose honour it was founded. His own love for science had sprung up spontaneously, and he followed it, not with any expectation of reward, but simply from the pleasure it afforded him. But he was induced to publish the results of his observations more by Mr. Hanbury than any one else. He trusted they would all find the same interest that he had found in the study of the works of the great Creator, and that they would all feel that which he would particularly seek to impress upon them, that there was no real contradiction between Christianity and science. For himself, he considered it the highest honour to be a Christian."

THE ADULTERATION OF DRUGS.

IN its issue of the 6th inst., the *Lancet* celebrates its sixty-first anniversary; and claims, as the deliberate intention of its founder, Mr. Wakley, a feature which has been one of its marked characteristics for many years, namely that of writing to and at the public. What its circulation is among the public we do not profess to judge, but we know it has a goodly number of readers in the persons of newspaper sub-editors, who scan its pages every week, and are invariably rewarded with one or two or more paragraphs written for their special behoof. Mr. Punch, the other day, compared it to the priest who cursed the jackdaw of Rheims: it warns us against eating and drinking and everything else. No one ever heeds it, yet nobody seems one penny the worse. It needs no critical eye to distinguish the paragraphs written at the public.

All this would not be worth saying, but that the same number contains a good specimen of this article, which nearly affects the general character of pharmacists. An editorial article is devoted to the subject of the adulteration of drugs, insinuating that the drugs supplied for medicinal use are unreliable. The *Lancet* is far too cautious to make any definite assertions that could be tested. The article occupies nearly a page. The facts it is based on are that the *Lancet* would like to feel more assured than it does of the tolerable purity of medicines; that pharmacy has enormously developed during the last fifteen years, and physicians know little or nothing about it; that standard text-books treat very lightly of the adulteration of drugs, Squire's "Companion" being cited as a conspicuous example; that in former times the Society of Apothecaries and the Royal College of Physicians were required to visit drug shops within seven miles of London and examine the quality of the goods sold there. "It is quite possible," says the *Lancet*, "that the notion of adulteration is exaggerated." This sentence needs only the alteration of one word—"certain" instead of "possible"—to make it strictly accurate. It says further: "We do not pretend to indicate with any precision the exact state of the case as regards the adulteration of drugs;" which is wise, for the whole tone of the article betrays the writer's want of familiarity with the subject.

The absence of allusion to the adulteration of drugs in books in the writer's library admits of three explanations: First, that the right books are not there; Flückiger and Hanbury's "Pharmacographia" gives paragraphs on commercial adulteration. Secondly, that so far as doctors are concerned adulteration does not exist, physicians' prescriptions being invariably dispensed with drugs and preparations of fair quality. Thirdly, the writer's conclusion—quite mistaken—that the subject of the adulteration of drugs is neglected: pharmaceutical literature teems with articles on the adulteration of drugs, as medical literature is now alive with bacteria. But the inference is not that drugs are extensively adulterated, but that pharmacists are so vigilant that adulteration cannot show itself without detection and exposure.

The practical conclusion the *Lancet* reaches is that "the Pharmaceutical Society, in co-operation with the College of Physicians, may reasonably be asked to undertake the inspection of drug shops. The exposure of the adulteration of food, first undertaken by ourselves with great public advantage, is now in a formal way—alas! too formal a way—the legal duty of public analysts; and so, too, is that of drugs. But as a means of exposing the adulteration of drugs, the Sale of Food and Drugs Act is practically useless. We must look for better work in this direction to that amendment of the Pharmacy Act which Professor Attfield showed lately to be so necessary in the public interest. It needs to be done, and thoroughly and systematically, at any rate on such a scale that both wholesale and retail druggists will have decided interest in guarding the purity of their drugs."

The *Lancet* does not know that a committee is in existence in connection with the Pharmaceutical Society, whose duty is to watch over the purity of drugs in the *wholesale* markets before they reach the pharmacist. The utterly impracticable nature of its suggestion does not trouble its serene infallibility. It does not even understand the Sale of Food and Drugs Act, and still confuses the duties of inspectors who have to expose and of analysts who have simply to report on the adulteration of foods. With such incompetent knowledge of the subject the *Lancet* allows some anonymous writer to use its influential position to cast a slur upon a class of men who are more dependent than most others on the confidence of the public. We repeat, the use of adulterated drugs in the dispensing of physicians' prescriptions is unknown; that it is equally unknown with regard to drugs sold to the public by respectable pharmacists; that only those need fear it who are smitten with the itch of avarice, which takes them to cheap shops whose owners will assume no responsibility.

THE PROTECTION OF PHARMACY.

EARLY this year we were told by all those who spoke authoritatively for the Pharmaceutical Council that it would imperil the chance of getting any amendment of the Pharmacy Act to even ask the Privy Council to support a clause adding carbolic acid and a few other well-defined poisons to the list of substances which may be sold by registered chemists and druggists only. Now we have the President of the British Pharmaceutical Conference urging on pharmacists, on Parliament, on the press, and on the public, not a trifling limitation of the sale of some dozen or two poisons, but a complete monopoly of the whole retail trade in drugs. And he declares that he has no manner of doubt that if for one short hour the attention of every thinking man in this nation could be gained to this subject, such a revolution would be carried forthwith. Either the spokesmen of the Pharmaceutical Council, or the selected orator of the Pharmaceutical Conference, must have gone far astray in reading the signs of the times.

Professor Attfield's claim for British pharmacy is not new: it has been made in scores of letters and speeches, and anyone who vigorously presses it is always sure of a sympathetic response. But this is certainly the first time the demand has been made with such clear definition and from such an important platform. Coming from a man in such a position as Professor Attfield holds, and from one of such recognised ability and life-long devotion to pharmaceutical interests, it deserves at least respectful attention.

The claim is, then, that in the interest of the public trained and qualified pharmacists should have the exclusive right of supplying medicines. It is not necessary to consider the slight exceptions which would have to be permitted to provide for the needs of districts where

a pharmacist could not make a living. At the outset Professor Attfield assumes that it was the intention of the Legislature in 1868 to bring about such a result. He says:—"The endeavour of the British Legislature to provide for the proper supply of trustworthy drugs to the public being seriously thwarted;" that when Parliament enacted that only duly qualified persons should take the title of *chemist and druggist*, and practise under it, it was not for the purpose of excluding unqualified persons from the ranks of chemists and druggists without calling themselves such, and, further on, after showing that in various parts of the country unregistered persons do sell drugs, here he says as "persons openly defying the spirit of the Act and the clear intention of the Legislature and of the State."

On this assumption Dr. Attfield's arguments are based; and, however we may regret it, we shall have to recognise sooner or later that it is an assumption which is by no means justifiable, and we cannot perceive any advantage in shutting our eyes to the fact. There is not a particle of evidence to prove that any member of Parliament, nor anyone else, had the intention of protecting the trade in drugs; on the contrary, there is abundant evidence to show that they intended to do just what they did do, namely, to protect the title of *chemist and druggist*, and thus give the public a guarantee that any person calling himself a "chemist and druggist" was competent to supply with safety the articles in which he dealt. A similar policy has been pursued since in regard to dentists and dental surgeons; while, in regard to medical practitioners, it is perfectly understood that no Medical Bill could be introduced into the House of Commons for a day if it proposed to interfere with the profession than protect its titles from infringement.

We believe, then, that the theory that the Legislature has ever has been, animated with the same design as the pharmacy as Professor Attfield enunciates, must be abandoned. The presumption of the almost unanimous opposition of Parliament to his scheme must be faced, and that be so, it only remains to be seen what arguments there are which it might be hoped would effect the conversion of that body.

The case rests on this proposition:—That the competition is becoming so severe, and is, in certain respects, so unfair, that pharmacy as a profession is rapidly becoming worthless, and that the public will wake up some day, rather, perhaps, in the middle of some night, to find that the consequence of its unwise patronage of stores and traders, there is no reliable place left where the genuine medicine can be obtained in the hour of need. This argument is addressed to Parliament and to the public, and it is from their point of view that it must be regarded. We do not make light of the troubles of the pharmacist, but it must be borne clearly in mind that Parliament only regard the matter from the public's point of view, at present it is literally accurate to say that the difficulty foreseen by Professor Attfield is absolutely probable. There is no hope that our legislators, swamped with their grievances, will stop their work and pass a law altogether exceptional character to provide against the possibility of a danger such as is suggested? A commission to investigate the trouble is hinted at, and is given of the evidence which could be laid before the body. We do not hesitate to say that the one piece of "evidence" which is given upsets the whole claim is that the number of registered chemists and druggists in Great Britain ten years ago was 13,216, while now it is 13,417. Allowing for the greater proportionate population, and for the probability that of the latter number somewhat fewer are in business for themselves

But this must be set the fact that in the first number (the more semi-pharmacists), considering all these conditions, is there any possibility that any Royal Commission would share Professor Attfeld's anxiety on behalf of the public? Most people are astonished that the proportion of pharmacists to population has not been reduced to a much greater extent. Certainly, as far as present appearances go, it seems every reason to believe that the report of such a commission anywhere as is imagined would very quickly bring forward a competent pharmacist to fill it.

The replies to the letter which Professor Attfeld sent to 3 pharmacists scattered over Great Britain do not seem to be very convincing. In the first place, the letter shows, by its first paragraph, that the writer had made up his mind as to his conclusion before he began his inquiries. "I desire to know," he says, "that it is to the direct interest of the public that something should be done to prevent the rapidly-increasing sale of drugs by unregistered and incompetent persons." Next, the persons appealed to were all interested parties; and, thirdly, the information they give does not seem to add anything to our general stock of knowledge. Surely it is known already that drugs are sold in most districts by registered persons; that in some localities the value of businesses was diminishing in consequence of the ruinous competition of greedy capitalists; and that in many places persons were carrying on businesses very similar to that of a chemist, but without actually infringing the law. It is a little curious that out of the 300 persons addressed so many should have seemed regardless of this competition. There we it appears, ninety-three who did not answer at all, fifty-five who did not allude to the matter, though directly questioned, and six who had not experienced the effects of such competition; that is to say, just a majority who practically announced that they had no particular grievance.

I know and deeply deplore the fact that the trade of a chemist and druggist has been of late years cruelly cut up by a great shopkeepers, who have professedly no other object in view than to get a decent interest on their capital invested. But other traders besides druggists have suffered from this new feature of retail business. Is there the remotest gleam of possibility that Parliament will interfere to prevent such a development of commerce? Many of the keenest, too, of these competitors in the drug trade are "of our own household." How could they be checked? Dr. Attfeld says that the principles of free trade must be suspended when the health of the public is at stake. On that ground monopolies might just as reasonably be advocated for the milkman, for the baker, for the butcher, for the plumber, and to a greater or less degree for all classes of trades. How can the innocent consumer know, when he drinks his morning milk, that he is not absorbing the germs of typhoid fever? Should not the Government protect him from the danger? But how a monopoly even in milk or medicine is going to guarantee the public perfect purity is what is not explained, and what we fail to see. The interference with the sale of deadly poisons is on the same level as the interference with the internal arrangements of theatres, and should be so regarded; and it is not logical to base upon that an argument for general protection.

We've too often urged action with a view of improving the existing law to let it be supposed that we see no necessity for doing anything. There is much which may be reasonably asked for, and which the Government is desirous of doing with the co-operation of pharmacists themselves, if the latter are practicable. The response which Professor Attfeld's address has evoked in the press will show the Pharmaceutical Council that they might, at least be a little less timid in their demands. The public is quite willing to

protect itself, but responsible statesmen will want reasonable evidence of danger before embarking on such a policy as is proposed.

We cannot think that Dr. Attfeld's address is likely to have a salutary influence on the trade. That it will bring to pass his ideal condition of things is, in our opinion, impossible; but that it will encourage the idea that some outside power ought to come to our aid, and the illusion that ere long some such relief will come, is pretty certain. Success in pharmacy is by no means impossible even in these days. We could name businesses which have doubled their value within the past ten years, but we should hardly care to base a theory on the prosperous condition of pharmacy on such isolated facts. But wherever such success has been attained it has been won by men who had special aptitude, either commercial or scientific, a qualification which the Legislature can neither give nor take away.

PROF. A. P. DE CANDOLLE offers a prize of 500f. for the best monograph on a genus or family of plants for competition for 1884. Papers in French, German, English, or Italian should be sent to Prof. Alph. de Candolle, Geneva, before October 1, 1884.

**

In a circular issued by the Standards Department of the Board of Trade to inspectors of weights and measures Mr. Chaney says, "There may therefore be grave doubt whether a local inspector would be justified in passing for use in trade measures which are overcrowded with graduations, as such measures would not correspond with the Board of Trade Standards."

**

THE *Lancet* makes a note, in quite unnecessary uncivil language, on the offer which we recently reported to have been made by Major Vaughan Morgan, the treasurer of the London Homœopathic Hospital, to contribute 5,000l. to St. George's Hospital if the managers would therewith make a fair test of homœopathy in its wards. The *Lancet* finds that proposal "unintentionally disrespectful in the highest degree to the medical profession. It assumes that there is something—in fact, a whole region of therapeutics—neglected by responsible and educated physicians and surgeons." It most unquestionably does make that assumption, and Major Morgan, in a polite reply, points out what that "something" is which is neglected. He finds thousands of qualified medical men in the world practising the system and believing in it, and he claims that its principles have to a great extent permeated medical practice and literature. All he asks is that if this be a delusion it should be proved to be such by a fair test, and he offers the means for such an experiment.

**

WHO invented compressed tablets for medicines? The glory is, perhaps, not very great; but, such as it is, it might as well be attributed to the right nation if not to the right person. Somebody reporting on the Zurich Exhibition in the Swiss *Pharmaceutical Journal*, speaks of some "compressed tablets manufactured by Mr. F. Hausmann, of St. Gall, similar to those originally manufactured in America." Whereupon Mr. Huber, of Basle, claims that the original invention came from Germany, if not from France. In 1874, he says, Professor Rosenthal, of Erlangen, suggested, in the *Berlin Klin. Wochenschrift*, that medicines might be compressed on a plan similar to that by which coffee had been treated in France for the army rations; that Mr. F. Baner, of Erlangen, carried out the professor's idea, and that he (Mr. Huber) had improved the machine so as to obtain round pellets instead of flat tablets. He exhibited his products at the Paris Exhibition in 1878, and there for the first time met with the American article. Now, it seems to us that if neither Germany, France, America, nor Switzerland can go further back than 1874, England might put in a claim. There were such things as Brockedon's compressed tablets of bicarbonate of potash and soda bought and sold in this country long before 1874—how long we cannot say, and we do not know that these differed in any very essential respect, except in propulsive power, from their more modern rivals.

THE *Pharmaceutical Record* of New York, with a laudable desire to convey to its readers some information respecting the decrepit old nation which seems to have existed only for the purpose of giving birth to the great American race, has commissioned a certain Chauvinistic New Yorker, who signs himself Louis Genois, and who seems to have spent just four days in London, to give his impressions of English pharmacy. This young gentleman disposes of the pharmaceutical display of the metropolis with a good deal of disrespect. He says:—

I visited several drug stores (chemists' shops they are called here), and was surprised to find nearly all of them ridiculously small and insignificantly small concerns, charging high prices, and generally operated by a single person—as a rule the proprietor. American patent medicines and specialties form a prominent part of their stock, and are displayed to the greatest advantage. Counter prescribing is extensively practised, although the shopkeepers claim that it is not so common in London as in the provincial towns; but I am told that many physicians dispense medicines to their patients without charge (?), thus reducing the pharmacists' business.

Only two stores seem to have met with our critic's very modified approval. These were Pepper's and Squire's, and these, he adds, "do not compare in general appearance with our large pharmacies in New York, Philadelphia, and Chicago; still, here they are looked up to and thought a great deal of!" British pharmacists who may feel hurt at being thus contemptuously disposed of may find consolation in learning that the same observer "hurried through St. Paul's Cathedral, which struck me as being only big" (lacking, no doubt, the architectural beauties of Talmage's Tabernacle); and only found his contemplative soul fully satisfied when he arrived at Madame Tussaud's, which "is certainly one of the sights of the city. The proprietors are almost American in their energy and enterprise."

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held at 17 Bloomsbury Square, on Wednesday, October 3.

Present:—Mr. J. Williams, President, in the chair, Professor Atfield, Messrs. S. R. Atkins, Borland, Hills, Naylor, Radley, Schacht, Taylor, and Young, Mr. Ekin (treasurer), and Mr. Plowman (hon. secretary).

The minutes of the previous meeting were read and confirmed.

Letters of apology for non-attendance were read from Messrs. Bengier, Payne, and Stephenson.

With regard to the distribution of the presidential addresses delivered by Professor Atfield at the Southampton and Southport meetings, it was moved by Mr. Schacht, seconded by Mr. W. Hills, and carried:—

That, in accordance with the generally expressed wish of the general meeting of the Conference at Southport, it is desirable that the two addresses delivered by the late President (Professor Atfield, F.R.S.) be distributed to members of both Houses of Parliament.

Professor Atfield presented the Conference with a sufficient number of copies of his first address for this resolution to be carried out. It was further resolved that the cost of printing, enclosing the two addresses in a cover, and adding any press notices, &c., be defrayed by the Conference.

Professor Atfield was requested to distribute the copies either direct, or as far as possible through gentlemen personally acquainted with members of Parliament.*

A sub-committee, consisting of the President, Professor Atfield, and the honorary secretaries, was appointed to arrange details.

Professor Atfield announced that he had already received applications from thirty individual chemists and druggists, and two local associations for parcels of the Southport address, with added press notices. Twenty of these requests were for parcels of 50, eight for packages of 100, one for 200 copies, one for 250, one for 500, and one request for 1,000 copies. The Committee agreed that the type of the Year-Book should be used for such reprints, allowed the extension of the pamphlet from 28 to 32 pages for the addition of press notices, and authorised the printers—

* Any pharmacist willing to assist in thus approaching members of Parliament should write for copies to Professor Atfield, 17 Bloomsbury Square, as soon as possible.

Messrs. Butler & Tanner, Frome, Somerset—to supply the parcels requested, and any others for which they might receive applications from chemists and druggists at the following rates, carriage paid:—50 for 4s. 6d., 100 for 8s. 6d., 500 for 32s., 1,000 for 3l. Applications to be made to Messrs. Butler & Tanner as soon as possible.

The following gentlemen having signified their willingness to act as honorary colonial secretaries for the under-mentioned districts were unanimously appointed:—Mr. H. Shillinglaw, Melbourne, for Victoria; Mr. L. F. Bush, Bathurst, for New South Wales; Mr. T. M. Winson, Dunedin, for New Zealand; Mr. A. Walsh, Port Elizabeth, for the Cape; Mr. H. S. Evans, F.C.S., Montreal, for Canada; and Mr. D. S. Kemp, Bombay, for Bombay.

The President and honorary secretaries were empowered to add to this list, before the next meeting of the committee, the names of any gentlemen who had already been communicated with, and who might announce their willingness to give their services to the Conference.

The following thirteen gentlemen were elected members:—

Mr. G. S. Butcher (Salford), Mr. G. Cheetham Hope, Mr. Walter Farnworth (Blackburn), Mr. T. Grant (Cvedon), Mr. Harland (Eccles), Mr. C. James (Birkenhead), Mr. W. N. G. Lance (Islington), Mr. Leadbitter (Sunderland), Mr. E. R. Leary (Sheffield), Mr. J. Robb (Cardiff), Mr. Thwaites (Bishop Auckland), Mr. W. S. Turner (Manchester), and Mr. J. Wells (Dublin).

THE SALE OF METHYLATED FINIS.

ON September 25 a deputation from the Executive Committee of the Chemists and Druggists' Trade Association waited by appointment upon the Board of Inland Revenue, Somerset House, London, the Commissioners present being Mr. Adam Young, deputy chairman, and Major-General Keith Falconer. The deputation consisted of Mr. J. Williams, President; Mr. W. G. Cross (Shrewsbury), vice-president; Mr. Frederick Andrews (London), and Mr. W. F. Haydon, secretary to the Association.

Mr. HARRISON explained the purport of the deputation. They had a grievance in reference to the action of the Excise officers when purchasing methylated spirit of a certain quality. Purchases of such spirit were continually being made from chemists and druggists, and sometimes to sell methylated spirit had been analysed and found to contain less than the quantity of gum ordered by the Board, and that they had rendered themselves liable to penalties under the Excise regulations. Some of these chemists who had been visited by the Excise officers, and who had sold methylated spirit, had been very positive in stating that, although the spirit was found to contain insufficient gum to meet the requirements of the Board, it was when it left their hands it did contain the required quantity, therefore the Association thought it would be advisable that the Commissioners should issue orders directing their officers when purchasing spirit for sale to leave with the seller a portion of the article (archival as was customary in carrying out the provisions of the Sale of Food and Drugs Act; he thought such a regulation would do away with a considerable amount of criticism. The Commissioners would see that, under existing circumstances, the seller had no guarantee that the portion of the spirit sold by him. He thought it extremely important that, in addition to proceedings commenced within a reasonable time after the purchase had been made, and that there should be a clearly-defined limit within which action was taken by the Board.

Mr. ADAM YOUNG said that he might say first, all in numerous cases where proceedings had been taken against chemists, they had expressed a surprise that sample had been found to contain less than the required quantity of gum, at the same time they almost invariably informed the Board that they did not make the spirit themselves, but that they purchased it from wholesale and sold it to the officers as supplied to them. He was like to suggest to the deputation that a far simpler procedure than amending the orders of the Board would be

Association to recommend all chemists who sold the spirit to take out a licence. In nearly all cases persons who sold spirit from chemists required it for burning purposes, and the gum it contained, if only a very small quantity, was nevertheless objectionable to the purchasers, as it clogged the wick and otherwise interfered with the quality of the spirit for that purpose. In 99 cases out of 100 chemists bought the finish from a wholesale house, and the Board of Inquiry had found that the way this finish was made was as follows:—So much gum was thrown into a cask of spirit without special care being taken that it dissolved. The spirit was then sent into the country, sold by the chemists to the officers, then analysed by their own analyst, and it was scarcely to be wondered at that it was frequently found short of gum. Some years ago the licence for selling methylated spirit was fixed at 2*l.*; or it could be sold without a licence if it contained one ounce of gum. On carefully considering the matter, the Board had come to the conclusion that it would be better to make a more clearly defined distinction, and they consequently some time since revised the licence to 10*s.*, and at the same time increased the quantity of gum to be added to spirit to make it into finish, hoping thereby to do away with the unpleasantness so frequently cropping up in reference to the sale of these articles.

M^r ANDREWS said that the Association had always urged chemists to take out a licence, but in many small districts where the methylated spirit was sold that it really did not pay chemists to expend even the small amount of 10*s.* per annum for a licence; and he therefore thought that if the Commissioners could see their way to make the new regulation ask for it would be greatly appreciated by the trade generally. In any case, however, the Association would still continue to urge its members to take out licences.

M^r ADAM YOUNG said the deputation might rest quite satisfied on one point—that in the event of the order being made it would really make no difference in the results, as the analysts were very careful, and the Board never took providings if the gum found was really approaching the quantity ordered.

M^r CROSS said he hoped the Commissioners would clearly understand that the deputation did not complain of the analysis of spirit as conducted by the Inland Revenue chemists, nor did they question the accuracy of their results, but it must be remembered that the spirit when purchased, in its passage to the Perpet House passed through the hands of a third person, and he, therefore, thought the Commissioners would agree with the deputation that it would be better for all parties that the samples should be divided. He came from a country district, and he could thoroughly endorse what had been said by M^r. Andrews as to the small amount of spirit sold by chemists in such districts; many of them did not dispense a gallon of spirit in three months, and, therefore, it did not at all meet the case to expect them to take out a licence, as they would prefer to give up the sale of the spirit altogether.

M^r ADAM YOUNG said that at the time their orders were modified, as stated, it was thought that probably those chemists who did not sell sufficient spirit to make it worth their while to pay 10*s.* a year for a licence would give up the sale altogether.

M^r FALCONER said that he thought in very many cases the wholesale houses were very much to blame in sending out to chemists finish in the manufacture of which they did not take care to thoroughly dissolve the gum.

M^r HAYDON said he had little to add to what had already been stated by the other members of the deputation. As both the Commissioners had expressed the opinion that the retail of finish was frequently less to blame than the manufacturer, he thought the Board could not possibly object to make provisions for a sample to be left with the retailer as some guide and protection to him against errors made both before the spirit came into his possession and again after it had left his hands. Without such a sample the retailer was in an extremely unpleasant position. He also hoped that when making the order the Board would so word it that the officers should be compelled to leave the sample with the seller, and not only offer to do so, as considerable difficulty had been experienced by the Association in cases under the Sale of Food and Drugs Act by vendors refusing to receive sealed samples when offered by the inspector.

M^r. ADAM YOUNG said that they would recommend the Board to issue the order asked for, and it should be made to comply with the last speaker's suggestion.

The deputation then thanked the Commissioners and withdrew.

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, August 23.

THE most important item of news since my last letter has been the suspension of Messrs. Hemmons, Laws & Co., wholesale druggists, of this city. A meeting of their creditors was held on the 16th inst. The statement of affairs showed assets estimated at 16,600*l.* against liabilities 31,400*l.* But as the stock has been taken at list prices, at least 25 per cent. should have been deducted from the value thereof. The deficiency, therefore, is increased by about 3,000*l.* It was resolved that the estate should be sequestrated, and that M^r. H. W. Danby be appointed trustee, with a committee consisting of Messrs. Charles Bright, A. Felton, and H. J. Langdon.

The failure is likely to affect a number of retail chemists who have had financial relations with the firm.

Since the meeting the estate has been placed in the Insolvent Court, and the first meeting was held to-day, when the assets should be disposed of by tender. The estate is not expected to realise more than four or five shillings in the pound.

A considerable number of the exhibits from Victoria for the Calcutta Exhibition have been shipped. M^r. Fosisto, the president of the Victorian Commission, is expected to leave by the next mail for Calcutta.

The Shops Commission recently visited the Australasian Glass Manufacturing Company and the Glass Bottle Works, for the purpose of ascertaining the conditions under which artisans are employed there. They found that a few boys were engaged at each place, but the majority of the workers were men, some of whom had been imported from England, the others having been trained in the colony. The managers of the Australasian Committee informed the Commission that the Colonial workmen were smart and active, and, as a rule, more steady than those introduced from other countries.

In the glass bottle works the term of apprenticeship was stated to be seven years, and at the Company's place five years, at the latter the men could earn as much as 18*s.* per day.

The Pharmaceutical Society are making preparations for their new building, the whole of the apparatus for the laboratories, lecture-hall, &c., having been ordered from America, and the glassware, &c., from Germany. Several English firms have written offering collections of specimens, &c. for the museum. M^r. W. J. Watkins on behalf of Messrs. Evans, Lescher, & Wells, and M^r. Charles P. Hayward, a member of the firm of Tomlinson & Hayward, Lincoln, England, both of whom are at present in Melbourne, proffer valuable contributions.

It is proposed that the Conference and the Annual Dinner shall form a portion of the opening ceremony.

A New Zealand Correspondent sends me the following notes in reference to the amendments proposed to be made in their existing Pharmacy Act:—

Our New Zealand pharmacy law is an extraordinary "hash;" it comprises much that is in your Victorian Act, but very stupidly leaves out the most useful and important portion. The twenty-fifth section of your Act is embodied in ours, with the exception of the first sub-section, which makes it illegal for any person not duly qualified to carry on the business of a chemist and druggist. Now, the result of that omission is that numerous persons keep open shop with the emblems of a chemist fully displayed, but so long as they do not exhibit the name "chemist," "druggist," or words of similar import, they do not commit a breach of our law. To remedy this and other shortcomings in the Pharmacy Act, the board determined to obtain the needful amendments this session; so, in order to strengthen their position with the legislature, they drew up a circular embodying the proposed alterations, and requesting an expression of opinion. The result of the *plébiscite* was that,

cut of 250 circulars sent, 128 voted for the amendments as a whole, and four approved, with the exception of amendment No. 3, affecting the qualification of managers in branch shops; the remaining 118 did not take the trouble to express themselves on the matter. This was considered very satisfactory. However, a section of Dunedin chemists took up the rôle of "oppositionalists" for the reasons stated in a circular published by them. This circular was forwarded to each chemist in the colony, and to each member of the legislature. Their conduct in this matter was warmly resented. Christchurch summed the matter up in two words—"obstruction and antagonism;" Wellington chemists thought it "presumptuous interference;" and the Auckland council at once forwarded a strongly-worded resolution, by telegram, unanimously approving of the board's action.

I fear that our Amendment Bill is now too late for this session; the Government could not take it in hand, but they suggest its introduction in the Upper House. The Hon. Dr. Menzies has promised to bring it in, and the Hon. Dr. Pollen and Hon. Dr. Grace promise assistance and fostering care. If our child survives and reaches maturity, its parents deserve much commendation, especially after the trying ordeal it has been subjected to.

PHARMACY IN CANADA.

(FROM OUR OWN CORRESPONDENT.)

MONTREAL, Sept. 19.

A GRAND banquet takes place here this evening in honour of the Earl of Carnarvon, who is visiting Canada and the Great North-West, where he has, I believe, large monetary interests. Montreal, being the Metropolitan City of the Dominion, feels it an honour and a duty to pay respect to a man who had so much to do with the Confederation of the scattered provinces of British North America. Yesterday he was invited to a seat in the Synod of the Church of England at present sitting, and in the evening he received an address from a lodge of Freemasons. Scarcely a week passes but the hotel registers bear the autograph of a Lord or an Earl.

The annual meeting of the Montreal College of Pharmacy was held last week, and Messrs. Roch, Dugal, and Louis Basidon were elected presidents and vice-presidents respectively; Alex. Manson, treasurer, and Wm. Abern, secretary; with a Council composed of the members of the Council of the Pharmaceutical Association of the Province of Quebec resident in this city. The College of Pharmacy, a better name for which would have been School of Pharmacy, was established to furnish lectures on chemistry, materia medica, and botany, to young men employed in the pharmacies of this province, at suitable hours. It has been uphill work so far, and even now it is almost impossible to excite the slightest interest amongst employers.

The Registrar of the Pharmaceutical Association was called upon this week to set the law in motion against a pharmacist in Sherbrooke for employing an unlicensed clerk. A warrant was issued, and the magistrate fined the delinquent twenty dollars. Other cases of flagrant violation of the law are in hand, and prosecutions will follow in due course. As a rule the provisions of the Pharmacy Act are respected in this province, and cases of violation are few and far between.

It must not be inferred that everyone is satisfied; not at all; the gentlemen whose shortcomings are discovered naturally grumble, and also those who desire the association to surround them with a stone wall to prevent any competition getting near them, in fact, all those who wish a monopoly do not think the Association does enough. Something of the same kind occurs in England I fancy. "God keeps those who keep themselves" would be a good motto for pharmacists to have engraved on their lockets. We, all of us, want more manliness and independence of character. This appealing to a society or an association every time a competitor sells a bottle of quack medicine at or below cost is absurd in the extreme. There is plenty of work for pharmacists all over the world. Let us use the intelligence which God has endowed us with, and the cultivation which colleges of pharmacy has given us to some better use than that of eternally grumbling.

The world is wide and locomotion has been made easy by science, therefore, if pharmacy is overcrowded in one country let us try another; or if a man is so wedded to his native heath that he cannot leave it let him try his hand at something else. The chemistry which every man nowadalearns as a pharmacist ought to make him useful to his fellow-men in other places than behind a counter.

The annual meeting of the Ontario College of Pharmacy, which holds the same position with regard to examining and licensing in the Province of Ontario as the Pharmaceutical Association does in the Province of Quebec, was held in Toronto on August 1, 2, and 3 last. By the statement of assets and liabilities submitted, our Ontario brethren appear to be in an exceptionally good financial condition, their assets over all liabilities being on August 1 \$7,666.84.

Very few changes have taken place recently in the retail pharmacies in Montreal. The Medical Hall branch, Philip Square, which was lately purchased by its previous manager, Mr. Dyer, from Messrs. Kenneth Campbell & Co., appears to be doing a flourishing business. Mr. Jackson's branch has fallen into the hands of Mr. Alphonse Davidson, who will doubtless in time work it up into a quiet family business. On Notre Dame Street a new pharmacy has been opened by Dr. Dams, who must have a good deal of moral courage to begin as a pharmacist alongside of two very substantial pharmacies both of which are backed by considerable capital. Mr. McNichol has opened out on St. Catherine Street West where, if report speaks truly, he is doing fairly well. All probability the time has arrived when it will be no longer profitable to open new pharmacies in this city. New beginners will find it to their advantage to buy old established houses. In any case very little can be done in the larger cities of Canada at the present day without moderate capital to begin with. Business appears to be very good with the wholesale houses, and few complaints are heard. One of our smaller banks has gone under this week. The usual assurances that no one will eventually suffer as usual, been freely made. The same assurances were made when the Consolidated Bank closed its doors.

An honoured and very old pharmacist, Dr. Picaut, tendered a banquet last week by the citizens of Montreal, in the Salle des Sociétés Nationales Françaises. About 30 people were present, a large proportion being gentlemen born in France, besides numbers of our leading citizens of other origins. The chair was taken by Ovide Perron, Esq. Vice-Consul of France, supported on his right by the guests of the evening, Dr. Picaut. During the evening the portrait of the pharmacist, for he has been identified with pharmacology in the last thirty or forty years, was presented with his portrait in oil, elegantly framed. The doctor's pharmacy is situated on Notre Dame Street, and his name is a household word in Montreal. He was some years ago Vice-Consul of France and has always taken a lively interest in the politics of his adopted country. After the banquet the guests of the evening was escorted to his residence on St. Denis Street, which he entered to the glorious strains of the "Marseillaise" sung as only Frenchmen can sing it.

ROUMISS IMITATION.—Two hundred parts of cologne milk, 2,000 parts of water, 2 parts lactic acid, 1 part citric acid, and 30 parts of brandy are mixed and carbonated. Cor well and let it stand for a couple of days in a warm room till it froths.—*Stearns's New Idea.*

PLEASANT DISINFECTANT FOR ROOMS.—Camphor, 20 hypochlorite of lime, alcohol, and water, of each 6 ounces, lyptus and clove oils, of each 1 part. The ingredients must be mixed slowly in a spacious vessel kept cool. A few drops on a plate will suffice to disinfect a chamber pleasantly.—*Farm. Ital.*

PAPIER FAYARD.—The *Indiana Pharmacist* gives the following formula for the preparation:—

Gum euphorbium	3i
Powdered cantharides	3i
Venice turpentine	3i
Alcohol	3i

Macerate the euphorbium and cantharides with the alcohol for forty-eight hours, strain, and add the Venice turpentine; spread on French tissue-paper with a soft brush of each sheet about 18 by 24 inches. This article is much reputed for the cure of corns, bunions, and the relief of gout.

Trade Notes.

BONJEAUD, manufacturer of bandages and elastic instruments generally, has removed from 49 Davies Street to 3 Grosvenor Street, W.

I have received another Parcels Post Box for bottles, this time from Messrs. Arundel & Marshall, Hoxton. The peculiarity is a tag on which the stamp is to be placed, so that official energy shall not be expended on the bottle.

I have received from Mr. Silverlock samples of several handsomely ornamented presentation almanacs for 1884, containing announcements adapting them expressly for distribution by chemists.

INDIAN ZOEDONE COMPANY.—At a special meeting of Indian Zoedone Company, on September 27, resolution was passed to wind up the company voluntarily, under the supervision of the Court of Chancery, and appointing Mr. Henry Sparke liquidator, were unanimously agreed to.

A "GRAPHED" circular has been sent to a number of the chemical manufacturers round about London, announcing that a sum of £200,000 is ready for investment in chemical works where there is an opportunity of manufacturing quin.

M. R. CHRISTIANI has sent us a sample of his flexible medicine capsules, made in six sizes, and filled with any medicine desired. They are put up in partitioned cardboard boxes, a partition to each capsule, which is also surrounded with a tacking little white paper frill.

The *British Architect* of September 21 contains a series of graphic sketches and a careful description of the new rehoused and assay laboratories of Messrs. Johnson & Son Limited, Cross Street, Finsbury, wholesale chemists and druggists.

The **SUSSEX DRUG COMPANY** publish by advertisement in this journal facsimiles of forged labels of their "Cobden's Quinine and Phosphorus Pills," which it appears have lately been placed on the market, and they ask chemists to return to them any of the spurious pills they may have in stock for exchange.

MRS. HEARN, RIDDELL & CO., of Kingsland Road, have sent us samples of various bottles such as chemists and druggists use. In point of finish these would give satisfaction to the most fastidious pharmacist. We are not provided with the means of judging whether they are specially cheap or not. The feeble bottles manufactured by this firm seem to be good value for the money.

MRS. BARNETT & FOSTER, who have removed their office from Forston Street to more spacious premises at Eagletharf Road, have published a new handsome catalogue of soda-water machinery, ice-making machinery and accessories, as well as subsidiary trades, confectioners' machinery, woodworking machinery, printing-presses, &c. It fills more than 120 pages, is profusely illustrated, and contains all the latest ideas.

We understand that Spratts Patent are to supply the pens and food at the forthcoming Crystal Palace and Birmingham Poultry Shows. All the pens will be their new and improved ones. This enterprising firm (not content with entering a new era in the fittings and feeding of dog and poultry shows) have opened works for the manufacture of all kinds of dog, poultry, and game houses and appliances, visit to their new show-rooms in Bermondsey Street will well repay intending purchasers.

AMONG the limited companies registered during September were the Electric Brush and Appliance Company, capital 10,000*l.*, in 1*l.* shares; the Mincing Lane Offices Company, capital 94,000*l.*, in 100*l.* shares; the Patent Oil Extracting Company, capital 30,000*l.*, in 10*l.* shares; the Rosbach Company, capital 25,000*l.*, in 5*l.* shares; the Scarborough Aerated Waters and Bottling Company, capital 3,000*l.*, in 3*l.* shares; the Whitwood Chemical Company, capital 200,000*l.*, in 100*l.* shares; and the Wholesale Mineral Water Supply Company, capital 15,000*l.*, in 5*l.* shares.

MR. WM. BECKETT, of Heywood, Manchester, has sent us samples of Winterine and Wolseley liqueur. The latter was first introduced to the public at a banquet given to Sir Garnet Wolseley at Manchester, the former at the opening of the local Masonic lodge. Wolseley liqueur has cinnamon as predominant flavour, with a basis of acid and a trace of capsicum. Winterine is rather warmer in taste, and is flavoured with jargonelle or pineapple, or a mixture. These syrups are intended for use with hot, cold, or aerated waters at all seasons of the year.

Personalities.

The present Mayor of Brighton, Mr. A. H. Cox, is to be re-elected for the ensuing year.

MR. HENRY HEIL has succeeded to the old-established business of Mr. T. Kalb, of St. Louis, U.S.A.

MR. A. H. SMITH, Broad Street, Hanley, has sold his business to Mr. Thomas Charles, late of London. Mr. Smith enters into a partnership in another trade.

MR. PELHAM C. YOUNG, chemist and druggist, Penzance, is selling off his stock at reduced prices, with the intention of discontinuing his business.

PROFESSOR ATTFIELD has been unanimously elected an honorary member of the Pharmaceutical Society of Denmark.

MR. THOMAS WARDLE, of Ashbourne, has purchased the business, 17 St. John Square, Burslem, for many years carried on by Mr. G. C. Guest, who retires from the drug trade to enter another profession.

We note that Mr. Joseph Ince has been added to the teaching staff at the School of Pharmacy, Bloomsbury Square. He will assist in giving instruction in the reading and dispensing of prescriptions.

MESSRS. PATON & FINLAY, of Edinburgh, have opened a second shop at 42 South Bruntsfield Place. The fittings, by a local house, are exceedingly handsome. The design is after Chippendale, and the wood, chiefly mahogany, is darkened and "dull" polished so as to produce the impression of age. All the fittings are in harmony, and the shop is a handsome addition to the pharmaceutical establishments of the Scotch capital.

A JUBILEE.—On Wednesday evening last, October 10, Messrs. Baiss Brothers & Co., wholesale druggists, of Jewry Street, gave a dinner at the Holborn Restaurant, in honour of Mr. John Clark, a gentleman who was then entering on the fiftieth year of his association with their house. The principals and all the heads of the departments were present, and several friends of the firm. The same evening a supper was provided for the rest of the employés elsewhere. Speeches were made which indicated the existence of a very cordial spirit between the principals and those in their employment. We understand that the firm had previously presented Mr. Clark with a valuable piece of paper, and that the staff showed their esteem by the gift of a handsome clock.

RESULT OF THE VIENNA PHARMACEUTICAL EXHIBITION.—The Benevolent Fund for the benefit of which the International Pharmaceutical Exhibition at Vienna was promoted, has received the sum of 5,000 florins as the net proceeds of the enterprise.

Obituary.

BOURNE.—On September 9, Mr. William Kemsey Bourne, chemist and druggist, High Street, Lavenham. Aged 38.

BORTHWICK.—On September 10, at Alloa, Mr. George Borthwick, chemist and druggist. Aged 73. He was a native of Jedburgh, and commenced business at Dunbar, where he remained two years. In 1838 he purchased the stock-in-trade of Mr. Tait, of Alloa, and has carried on the business in the same premises for nearly forty-six years. His brother continues it. He was well known and much respected in Alloa.

CUNLIFFE.—On September 2, Mr. John Cunliffe, Blackburn Street, Bolton. Aged 53.

DILLON.—On September 20, at Hereford, Mr. Francis R. Dillon, chemist, member of the Hereford Town Council, from an overdose of chloroform. He had been ill lately, and had been in the habit of occasionally taking opiates. On the previous night, about twelve, he went down to the shop, ostensibly for a draught, and was soon after found on the floor dying. He died before medical aid arrived. There were open bottles of strychnine and chloroform on the counter. The medical witness said that the deceased died from inhaling an overdose of chloroform. The jury returned a verdict to that effect, but added that whether inadvertently or from temporary insanity there was no evidence to show.

ELLSUM.—On September 16, Mr. William Augustine Pridmore Ellsum, chemist and druggist, High Street, Newcastle, Staffordshire. Aged 27.

GEERTS.—The Dutch *Pharm. Weekblad* reports the death of the well-known pharmacist A. J. C. Geerts, the director of the Japanese State Laboratory, at the age of forty years. Herr Geerts was originally a military apothecary, and went as such into the service of the Japanese Government, where he soon acquired an eminent position. Under his initiative a favourable impetus was given to pharmacy, scientific instruction was improved, numerous laboratories were erected, and many important sanitary measures were introduced.

GUTHERIDGE.—On July 6, of fever, in the West Indies, Mr. George Frederick Guthridge, M.D. and Bell Scholar, formerly of Falmouth, surgeon of the Royal Mail steamship *Serena*. Aged 27.

HARTLEY.—On September 7, Mr. Charles Joseph Hartley, chemist and druggist, New Malton, Yorkshire. Aged 69.

IMRIE.—On August 31, Mr. David Imrie, chemist and druggist, Consett, Durham. Aged 74.

ROW.—On September 16, at Devonport, Mr. Charles Row, pharmaceutical chemist. Aged 79. He was one of the magistrates of the borough, was mayor in 1864, and chairman of the School Board for many years. He was a prominent member of the Methodist body.

STOKES.—On September 7, Mrs. Mary Stokes, chemist and druggist, Watery Lane, Birmingham. Aged 74.

STRANG.—On October 5, Mr. Peter Strang, chemist and druggist, 34 St. John Street, Perth. Aged 53. Mr. Strang had been thirty-five years in business for himself, and was extensively known and highly esteemed in the city and county where he resided.

WATSON.—On September 10, Mr. Horace Watson, jun., chemist and druggist, Laceby, Grimsby. Aged 35.

MARRIAGE.

RUNNALLS-CARDELL.—At Bodmin, October 2, by the Rev. Richard Daw, Harry Boyle Runnalls, surgeon, Saltash, to Edith Wilmot Cardell, youngest daughter of J. M. Harvey Cardell, chemist, Penventon, Bodmin.



LIQUIDATIONS.

BAMFORD, GEORGE WOOD, 13 Sunny Mount, Spring Lane, Radcliffe, druggist. October 3.

CARTER, JOHN, 1 Whitfield Street, Hunslet, Leeds, and Gield Road, Birstal, ammonia manufacturer. September 13.

JACKSON, JAMES, Kirby Moorside, chemist, druggist, and wine and spirit merchant. September 13.

MARCHAM, JAMES, 5 Lower Bridge Street, Chester, druggist and analyst. September 6.

NATION, WILLIAM, & BURTON, EDWARD, Redcross Works, Art Road, St. Phillips, Bristol, under firm of Nation & Burton, druggists and grocers' sundrymen. September 19.

PAINELL, EDWARD ANDREW, Ashley Villa, Eaton Terrace, Swansea, consulting chemist; in partnership with Joseph Hall as analytic and chemical manufacturers, Llansamlet, and 4 Cambrian Place, Swansea. September 18.

PEAKE, CHARLES, 123 New Street, Burton-on-Trent, patent medical dealer. September 20.

TOWLER, GEORGE BLAND, 58 Queen's Road and 14 The Willow, Liverpool, chemist, druggist, and dysalator. September 5.

TROAKE, MARLER HAMILTON, Helston, chemist and druggist. September 10.

WHEATCROFT, ADOLPHUS EDWARD, 84 Osmaston Road, Derby, chemist and druggist. September 11.

WILLIAMS, THOMAS LLEWELLYN, 179 Howard Place, Sheldrake, chemist and druggist. September 20.

SCOTCH SEQUESTRATION.

PAUL, WILLIAM TAYLOR, Medical Hall, Motherwell, and Mosely, chemist and druggist, under firm of Paul & Co. September 19, 11 Commercial Hotel (Campbell's), Hamilton. Claims by January 10.

PARTNERSHIPS DISSOLVED.

JONES, ORLANDO, & Co., Billiter Street and Battersea, patent test-manufacturers. (John Kemp Welch, William E. Will, St. Mary's, Welch, and Joseph Walton; as regards J. K. Welch, May 1.) Debts by remaining partners.

PRYER & HARRIS, Axminster, chemists and druggists. July 31, 1883. (William Symes Pryer and Michael Charles James Harris.)

PRYER & HARRIS, Axminster, chemists and druggists. July 1, 1883. (Elizabeth M. A. Pryer, widow, executrix of William Symes Pryer, deceased, and Michael Charles James Harris.)

SINGLETON, JOSEPH, & Co., Blackley, near Manchester, manufacturing chemists. September 4. (Joseph Singleton and Arthur Geo. Ashworth.) Debts by Singleton.

SMITH, T. & H., & Co., Duke Street, Edinburgh; Worship Street, London, and Blandfield Chemical Works, Canonmills, Edinburgh, manufacturing chemists and druggists. (James Shankie Smith, Peter Shankie Smith, and James Smiles; as regards J. S. Smith, July 2.) Debts remaining partners.

WORCESTERSHIRE SAUCE AND PICKLE COMPANY, Stratford Road, Birmingham, condiment manufacturers. September 1. (Edgar Hyslop and Joseph Ashmore Russon.) Debts by Hyslop.

MARLER HAMILTON TROAKE, Chemist, Helston.

A MEETING of creditors *in re* this estate was held at Plymouth on September 28. Mr. Godd, of Exeter, presided. The debtor's statement showed 761*l*. due to unsecured creditors, 318*l*. to creditors holding a security worth 8*l*. 2*s*. for rent, wages, &c., the total liabilities being 1,100*l*. The assets, valued at 610*l*, consisted of stock-in-trade at Helston (if sold as a going concern) 329*l*, book debts 12*l*, valued at 100*l*, cash in hand 19*s*, and furniture, fixtures, &c., 180*l*. The principal creditors were Bolith & Co., bankers, who proved for 318*l*; Evans, Gadd & Co., Exeter, 170*l*; Barron, Harvey & Co., London, 101*l*; an Mr. Clark, Plymouth, 49*l*. The debtor attributed his failure to loss of trade; and, having no offer to make, it was resolved to liquidate by arrangement. Mr. J. J. E. Dawes was appointed trustee, and instructed to grant the debtor a discharge at the expiration of three months from the date of the meeting, if he rendered him every assistance. Separate friends would come forward and assist him, the debtor being willing to sell the estate to him on easy terms.

Exchange Column.

Advertisements are inserted in this column at the rate of one halfpenny per word, condition that name and address are added. An address to be paid for. Price in this column counts as one word.

Name and address are not included, one penny per word must be paid. A number will be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C." the envelope to be addressed with the number. The Publisher transmits the correspondence to the advertiser and with that share in the transaction of the case.

Dental and Surgical.

Set of 12 modern tooth instruments, in mahogany case, nearly new; what offers? Cook, 2 Mozart Street, Harrow Road, W. Set of tooth-forceps, key, and elevator, by Ash, set 5s. 5s., 2s. 5s.; scaling, stopping, extracting, and other instruments, 1-inch microscopic objective, 1l. H. 5 Camden Villas, Shirland Road, London, W.

Drugs and Chemicals.

Mor. mnr. and acetate, 6s. per oz. Read, Chemist, Upper Holloway, N. Exchange for patents, &c., a 6-lb. drum glycerine-1760, 9½d. per lb., and a 6-gallon case of Norwegian cod liver oil, 7s. gallon. E. Banner, Liverpool. Guaranteed genuine.—2 lbs. quinine, 7s. per oz.; lbs. salicylic acid, 7s. 3d. lb.; 26 1 oz. bottles tannic acid at 4d., including bottle. Harman Brothers, Chemists, Roman Road, Bow, London.

Proprietary Articles.

Perf., &c., for immediate disposal; list sent. Apply to 72/33. McD's dip, 16 tins 3s., 9 ditto, 5s. 6d., 4 ditto. Quite fresh, will take four guineas. Thomas, Chemist, Bulth. Nichols' Liebig's cocoa, nine 2s. ditto, three 9d. Gristock's gont pills, one 5s. Nelson's latine, two 1s. 1½d. fir wool oil, three 9d. Blackburr's cough elixir, two 2s. 9d. Kinson's preservative, four 2s. 9d. Scott's, three 1s. 1½d. McDougall's carbolate, at half retail price, good condition. Right, Knaresborough. W. S. slightly soiled: six, 2s. 9d. Professor Brown's herbal ointment for 7s. 6d.; five Steiner's vermin paste, 2s. 6d.; three 1½d. paper Fayard, 1s. 6d.; four 7½d. Nire Night's eye ointment, 1s.; six 1s. 1½d. Peptic compound, 3s.; two 2s. 9d. Silver's energiser, 2s. 6d.; two 1s. 1½d. Margaret's cough elixir, 10d.; sixteen 1s. boxes of cement for marble, &c., 7s.; nine 6d. ditto, 9s.; five 1s. boxes Cyprus cigarettes, 2s. Garman Brothers, Chemists, Roman Road, Bow, London.

Educational.

Tal. Materia Medica Cabinet and Herbarium, 37s. 10s. 6d. or offers. Sanders, 14 Vicar Street, Kidderminster. Bet. legible autograph prescriptions (original), 6d., as presented to the Pharmaceutical Society of Ireland for their examination; 30 prescriptions (catch and difficult) to dispense at Minor during past 12 months, 2s.; 50 questions asked of successful students at last Minor, 1s. 1d.; lot of map, almost new, books. Stamp for list, Sanders, 130 Camden Road, N.W.

Optical.

A quantity of spectacles for sale or exchange, cheap. 73/11. 68 pairs of spectacles cost 6l. six months ago; will take 3l. Thorpe, Chemist, Northampton. Seven dozen new spectacles, retailing from 1s. to 7s. 6d. each, including tinted, periscopic, curl-sides, &c., 25 per cent. less than invoice price. Brigstocke, Chemist, Carmarthen.

Apparatus.

York Glass Co.'s displacement apparatus, one-pint size, price 10s. Forbes, Reigate. Four large oil-cisterns, brass taps, 4½ feet high, 2½ feet diameter. 73/23. A 10-gallon portable still complete, with worm and tub, cheap. 71/33. A D'O's No. 2 light and power battery, 25s., little used, sell for 15s. Vennall, Craleleigh, Surrey. Maben's hot-air chamber (see *Pharmaceutical Journal*, March 31); what offers? Wilson & Son, Chemists, Harrigate. Percolator, complete glass, 2 gallon, graduated, 320. What offers? Willis, Chemist, Stockport. Pill machine, new, for 24 five or seven grain pills, free by parcels post on receipt of 13s. 6d. Eastman, Chemist, Tottenham. A 2-gallon copper still, tinned inside, in good order, 2½s.; very cheap. Read, Chemist, Upper Holloway, N.

Literature.

Chemist and Druggist posted fortnight after publication; offers. Forbes, Reigate. *The Chemist and Druggist*, from 1878 to 1882 inclusive, unbound, 10s. for lot, good condition. Chalmers, Greenock. "Modern System of Farriery," illustrated. Skeavington, excellent condition, 10s. Davies, Chemist, Machynlleth. Nine vols. *Pharmaceutical Journal*, 1811 to '49, bound; cash or exchange; good condition. Holfield, 168 Piccadilly, W. What offers? *Chemist and Druggist*, 1880, 1, 2; *Pharmaceutical Journal*, vols. 12 and 13; *Chemist's Journal* first 68 numbers. Taylor, Chemist, Sedbergh. Southall's *Materia Medica Cabinet*, 12s.; Garrard's "Materia Medica," 6s.; Fownes' "Chemistry," 5s.; Lescher's "Pharmacy," 4s.; Bentley's "Botany," 3rd edition, 7s. 6d., 2nd edition, 4s. 6d.; all in good condition. Pierce, 4 Great Percy Street, London, W.C. *Pharmaceutical Journals* for several years; also the students' collections of specimens of *Materia Medica*, by Southall, Birmingham; what offers? or will exchange stereoscope with slides. Address, R. Newman, 13 Market Street, Darwen. Any reasonable offer accepted; ten volumes (complete) "Circle of the Sciences," published price 8s. 6d. each, by Wyld, excellent condition; Attfield's "Chemistry," Balfour's "Botany," Willis' "Pharmacy," Willis' "Materia Medica," Lescher's "Elements of Pharmacy," Roscoe's "Elementary Chemistry," Isaac 10 Gold Street, Cardiff. "Harris on the Pig," 1s. 6d.; British Pharmacopoeia, 1864, large edition, 3s.; small, 2s.; "Complete Herb-list," Brown's, 3s.; Horner's Medical Dictionary, 5s.; "Cyclopaedia Domestic Medicine," Andrews, 2s. 6d.; "Water Analysis," Wanklyn, 2s.; Clarke's "Cattle Doctor," 1s. 6d.; Clarke's "Farrier," 1s. 6d.; Bridlake's "Chemistry," 1s. 6d.; "Caesar," with translation, 2s. 6d.; Latin-English Dictionary, 2s. 6d.; "The Horse," Youatt, 3s.; Squire's "Companion," 1873, 3s. 6d.; Proctor's "Lectures on Pharmacy," 3s.; London Pharmacopoeia, 1835, 2s. 6d.; 6 doz. 1½-oz. covered pots, 1s. 6d.; 9 doz. 1-oz. covered pots, 1s. 4d. Griffith, Pharmacist, Blandford.

Soda-water Plant.

Second-hand soda-water plant—several in stock. Address, Brathy & Hinchliffe, Sandford Street, Ancoats, Manchester. Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 23t Forston Street, Shepherdess Walk, London, N.

Shop Fittings.

The fittings of a druggist's shop, consisting of shop-rounds, pots, &c., all with contents; mahogany drawers, large glass cases, specijars and carboys, with mahogany stands for same. General appliances. Apply for full particulars to Young (late Prockter), Chemist, Penzance. First-class second-hand dispensing counter, deal-panelled counter-front and mahogany top, and mahogany screens with handsome plate-glass table's, gold writing, 7 ft. 5 in. long by 4 ft. 11 in. high, 5l. 10s.; two 6-foot nests, two 4-foot, two 2-foot mahogany-fronted drawers. To be sold cheap. 2: Gun Street, Brushfield Street, Bishops-gate. Second-hand stock.—Counter and upright case as Maw's A 4, 42 in. long, 25 in. wide 23 in. high, no carving, 6l.; Spanish mahogany dispensing screen, plate-glass sashes and tablets, pilasters and trusses, own make 107 in. long, 23½ in. high, 7l. 10s.; mahogany external doors, plate-glass, shutters, fanlight, 88½ in. high, 48 in. wide, 3l.; mahogany shop-front sash, 139 in. long, 111½ in. high, 30s.; counter-case, 39 in. by 24 in., 10s.; ditto, 25½ in. by 12 in., 5s.; plate-glass fascia, "Pharmaceutical Chemist," embossed black ground, 146½ in. long, 14 in. high, 3l. 10s.; 20 1-gallon black uprights, 10s.; 26 3-pint, 4 3-gallon cylinders, 20s.; 21 1-lb. drab pots, new, 18s.; 16 8-oz. ditto, 7s. 6d. Hawke & Son, Wild Court, Great Wild Street. Dispensing cases and screens, 5-ft., 6-ft., 7 ft. long; glass case at cash end, mirror centre, &c., various designs: 3-ft. long, 3-ft. 6-in., 3-ft. 10-in., 4-ft., 4-ft. 6 in., 5-ft., 6-ft., 7-ft. long, as fix. A 54, 55, 56 Maw's; sponge-cases, A 41, 42, 43; show-stands, A 38, 40, 39; counters, all sizes, A 60, 61, 63, 66, 67; dispensing counters or cabinets, A 73, 77; drug-drawers, A 79, 80; shopfittings, all sizes, A 82, 83, 84, 85; wall-cases, A 86, 87, 88; quantity nests retail and dispensing counter drawers; counter and dispensing scales, figs. 2, 4, 9; quantity mortars and pestles, compounding funnels, graduated glass measures, pill machines, copper and pewter measures, oil-cisterns, and every description shopfittings, show cases or utensils required by the trade. Lloyd Rayner, 10 and 46 De Beauvoir Crescent, Kingsland, London, N. Plate glass counter-cases, superior, best make, new, A 1, 4 ft. long, 10l.; A 4, 3 ft. long, with carved top, 10l.; 3 ft. 6 long ditto, 11l.; A 5, 4 ft. 6 long, 15l.; 5 ft. 2 long, 18l. 10s.; 4 ft. 10 long, 17l. 10s.; A 8, 5 ft. long; 6 ft. long; A 12, 2 ft. 1 long, 2 ft. 4 long, A 15, 4 ft. 8 long, 6 ft. long; A 18, 4 ft. 9 long, 6 ft. long; upright cases, without desks, A 31, 32; 7 upright cases with desks, A 30, 31, 32; cigar-cases, A 34, 35; tooth brush cases, A 9, 10; 2 ft. to 3 ft. long, 17 in wide flat counter-cases, sloping glass fronts, mirror backs; 2 ft. to 2 ft. 6 long, 3 ft. high upright counter or wall cases; quantity gold-labelled shop-bottles and jars; specie jars; 3 handsome large carboys, cut stoppers; quantity show jars, fig. D; jujube and lozenge jars; show-jars, figs. A, C; shop lamps and brackets, figs. 1, 3, 5, 6 Maw's; 2 pillar lamps and brackets. Lloyd Rayner, 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

Show carboys and shop jars. Hudson, Chemist, Southwick, Sunderland.

Two 6-gal. carboys, cut stoppers, for window, height 29 inches, 35s. pair. A. Deck, King's Parade, Cambridge.

Ten black store-bottles, about 4 quarts, gold labels and tin caps, nearly new; offers. A., 33 Fernheal Road, Padiington.

Leech aquarium, shop rods, show carboys, sell or exchange Whelpton's pills 2s. 9d. Hulme, Chemist, Fenton, Staffordshire.

The entire fixtures of several handsome chemists' shops for disposal; great bargains. Lloyd Rayner, 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

I have a beautiful medical cupboard with eighty compartments, rest of drawers, &c. with mahogany top, 7 feet high, will exchange same for turning lathe, back gear preferred. R. H., 1 St. John's Road, South Norwood.

Formulæ.

Face-powder, cheap, and equal to any; recipe, 1s. H., 5 Camden Villas, Shirlaad Road, London.

Valuable proprietary article—Pate-de-Lieben—similar to Christian's (see last month's number); same terms not guaranteed after duration of this announcement. Atkinson's "Milk of Roses," cost trifling, result satisfaction, splendid basis for cosmetic nostrums; 13 stamps "Devonensis," Broad-hampton, Totnes.

Formulæ for the following preparations, at present in successful use, and therefore recommended with confidence—the confidence of experience. "Foaming Liquid Dentifrice," strong and the flavour unique; "Quinine and Iron Tonic," pleasant, harmless to the teeth, and keeps unchanged; "Transparent Glycerine Jelly," equal to Wheeler's, cheap, and without gelatine, isinglass, starch, or soap; "Hair Restorer," a desirable specialty, being cheap, quick, and harmless—has paid the rent where now used; "Milk of Roses," a perfect emulsion; "Marking Ink," equal to Bond's, and will not burn the fabric; "Perfect Writing Ink," without galls or iron, equal to Draper's, and costs 2½d. per gallon; "Cod liver Oil Emulsion," "The Senegal Cough Syrup," and others on application, 9d. each, 3 for 2s., 6 for 3s. 6d., post free. W. Stewart, 39 French Street, Southampton.

Fragrant foaming dentifrice (like "Florine"); marking ink, *sine* silver (auilune), writing executed defies chemicals; effervescent fruit saline (resembles Eno's); magio neurogic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-juice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or galls); cherry tooth paste (never ferments, like Gosnell's); brilliantine (inseparable, like Rimmel's); pill-coating (pearly white, no mucilage or mastic used); glycerine jelly (perfectly transparent); crimson marking ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); plate-powder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hay's); corn solvent, clear (not acid); liquor copahæ comp. c. buchu et matico (mixes clear with water); gonorrhœa paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5s. each (five for 12.). Readers are cautioned against cheap and worthless imitations. I was first to advertise formulæ in this journal. "Analyst," care of Mr. Warnes, 130 Camden Road, N.W.

Gonorrhœa in all its stages and complications, successful treatment, 2s. 6d.; also, primary, secondary, and tertiary syphilis, 2s. 6d.; menthol cones, relieve toothache, tic, neuralgia, and sciatica instantly; Parrish's chemical food, syrup hypophosphites (equal to Fellow's), 1s. 6d. each. Address, "Surgeon," Helburn-on-Tyne.

Satisfaction guaranteed.—"Fumigating Ozonic Ribbon," deliciously perfumed, agreeable, and economical disinfectant, 3½ yard; "Marking Ink," jet black, indelible, can be honestly recommended; "Corn and Wart Eradicator" (iodine and salicylic acid), rapid, painless, almost infallible; "Anti-spasmodic Elixir" (ginger, camomile, &c.), rapidly dispels wind, and gives tone to the digestive organs; "Influenza Mixture," simple and effectual remedy for colds, influenza, &c.; "Stomach-corrector," invaluable for biliousness and all stomach derangements; "Essence for Deafness," best and surest specific ever offered; "Chillblain Remedies," invariably give instant ease; "Glycerine Cough Linetus," always reliable, pleasant taking, quickly cures most obstinate cough; "Hooping Cough Syrup and Embrocation," used in conjunction, will cure severe cases, syrup most agreeable, embrocation resembles Roche's; "Flavoured Browning," most useful culinary adjunct, gives rich appearance and appetising flavour to gravies, &c.; "Glycerine and Almond Jelly," three colours, attractive appearance, firm, and saleable; "Mist. Gonorrhœa" (capiivi), nauseous taste covered, efficacious and reliable; "Cryptozymosis," infallible injection for gleet, cures long-standing cases, very profitable; "Campholyde," certain external specific for neuralgia and nerve pains; "Amygdaline Balm," elegant and useful proprietary for softening the skin, quarter price of glycerine; "Lime Cream and Glycerine," quite inseparable, creamy, snow white, guaranteed best in market, from 2s. 6d. gallon; "New Remedy for Toothache," gives instantaneous ease, infallible, non-poisonous; "Nigerine," jet black, waterproof patent blacking, equals Nubian, quarter price, contains oil, and improves leather; "Rheumatic Embrocation," best and cheapest remedy in existence for rheumatism, sciatica, &c., 7d. lb.; "Digestive Relish," most delicious, appetising sauce in creation, preferred to Yorkshire, cost half; "Quinine and Iron Tonic," bright, unchangeable, and equal to Pepper's; "Worm Syrup," purely vegetable, pleasant, rapidly effective; "Occasional Pills" (for ladies), preferred by many to Welch's or other female pills, no decomposition; "Lavender Water," equals Sainsbury's in aroma and durability of fragrance; "Hair Restorer" (*sine* sulphur), guaranteed quite equal to any advertised preparations, inexpensive; "Effervescent Depurative Saline," facsimile of Eno's, entirely soluble, keeps well, 10d. lb. All above are guaranteed genuine, honest formulae. Money returned or recipe exchanged if not approved of. Recipes 1s. 1d. each, 3 for 2s. 6d., post free, with full directions for making, doses, uses, and all particulars. T. Brooks, Chemist, Louth, Lincolnshire. Detailed list post free.

Miscellaneous.

Second-hand pill machine, complete, 5-grain, makes twenty-four, 5s.; nine packets Day's red drench, 5s. Fraser, Chemist, Paines.

Mahogany desk-case, 28 inch by 22, 25s.; *Pharmaceutical Journal* from 1872, a few numbers short, 15s. the lot; six volumes Clarke's "Commentaries," 15s. W. L. Preston, Chemist, Barrow-in-Furness.

Cheap, five large enemas in boxes, as Maw's fig. 18; also, three letter weighers and weights, brass, up to 4 oz.; four second-hand spec-jars, in fair condition. Apply to G. Stickland, 109 High Street, Cheltenham.

Gentleman's silver watch, by Dennett, Cheap-side, crystal case, in good going order, with silver large link Albert, a bargain, 50s.; also, ladies' gold watch, by Dent, Strand 50s.; very cheap. 72/4.

Ol. male-fern capsules, small honeycomb; journals, bound, from 1854; buchu pyrethri, digitalis, &c. 72/4.

About four dozen quart Carlisbad Water, quite clean, 6s. per dozen; six doz. Zoedone, 5s. per dozen cases, and bottles. J. Meredith, Chemist, Brecon.

Post pill-boxes, 5 gross No. 5, 3 gross No. 15; turned wood box No. 2, two gross 7, four gross 8, the gross each 9 and 10, 1½ gross 13, gross 133 per cent. off Maw's list, all in good condition, ess. bergamotte super, 8s. lb.; 6 gross perfume bottles, suitable for scents, 5s. per gross. Powell & Clemenists, 27 Temple Street, Bristol.

Pfelfelder's machine (for masses, 14 inch), perfect; the *Chemist* and 1839 to 1882 inclusive; "Nautling swimming-belt, Maw's; large silver smelling bottle; variety of instruments for teeth extraction; fountain aqua supply and waste arrangements; blue glass show-case, 12½ by 12½ by 12½; "Cabinet" sewing-machine, by Weller & Wilson. Particulars, Market Place.

WANTED.

Warner's pill-vases. Lawrence, Chemist, Galls, rubby shellac, sachet, net, large deposit-mortar. Adams, 74 Oxford Street, London.

Dental instruments, second-hand. J. Hall, 23 Square, St. John's Wood, N.W.

Bentley's "Botany"; scales as fig. 7 M. M. 1A Hamilton Street, Camden Town order.

A mixing machine, up to 14 lbs. Brae's preferred. J. Hardy, Bishop's Stortford.

Surgical instruments, spoons, &c. Houghton-le-Spring.

Genuine beeswax, cheap, cash or exchange for spectacles, 73/11.

Squire's "Companion," last edition, state and condition. Duck, Chemist, Cambridge.

Six-oz. pomade-bottles, varnished to Stainland.

Second-hand "Materia Medica," Muter Appy, Bowes, 15 Flowergate, White.

Suppository mould for six, electroplate calfe, Chemist, Hull.

Seconds castor oil wanted; also paraffin 70/20.

Swaale's corn-plasters; state price. E. Son, 59 Moorgate Street.

Rotary pill-machine to make pills 4-in diameter, 69/10.

A small still; give full descriptions and price. "Alpha," 18 Loampt Vale, London S.E.

One or more shares required in "Agricultural and Mineral Water Association," 6/24.

Desk-case or desk; petroleum distillate 200 or more. W. L. Preston, Barrow-in-Furness.

Sheep dipping apparatus, and 40-gal. cistern, with lid, both good condition, cheap. Wright, Knarborough.

Attfield's "Chemistry," and "British copolia." Address, Russell, care of Cuislehurst, West Kent.

Magneto-electric machine, single or magnet, in box, complete. Metcalfe & Hull.

The *Chemist and Druggist* for February Thomas Hodgkinson, Preston, 81 Bishopsgate Street Without, E.C.

An "Enterprise" drug-mill, root-cutting worm, and suppository-mould. G. Windcott, Wellington, Somerset.

Pereira's "Selecta e Prescriptis," "Sallust," and books for Minor Exams. &c. State lowest price. Aleph, c. Kershaw, 179 Lord Street, Southampton.

250 gold-labeled bottles, good quantity of pots; bell-metal mortar pill machine; carboys, &c., ver Parry, 148 King Street, Hammersmith.

Second-hand dental forceps, stopping sealing instruments, also special. Any one wishing to dispose of above "Pharmacist," Messrs. Newbery 1 King Edward Street, E.C.

Two pear-shaped globe carboys, 10 gal. glass stoppers; 200 to 300 shop bottle glass labels, in good condition; 20 good 4-lb. covered jars, gold labels condition. F. Parsons, Pharmacist, Leicester.

Trade Report.

THE Board of Trade returns for September show that the imports amounted to 32,307,000*l.*—a decrease of 8,00*l.* or 2½ per cent., and the exports to 20,495,000*l.*—a decrease of 427,000*l.* or 2 per cent. In the case of the former, therefore, there is rather less activity relatively to last year than there was in August, while the tendency of the exports is actually unchanged, there having been a slight, but almost continuous diminution month by month throughout the year. Their falling-off, however, has amounted during the three quarters to only 2,470,000*l.*, or under 1½ per cent., which is not a very serious reduction, considering that the figure for 1882 was over 10,000,000*l.* larger than that for 1881. The falling-off during September is accounted for by reductions in the shipments of iron and steel, copper, and iron manufactures.

The alkali trade shows a moderate improvement, but the business in other chemical products continues to manifest the contracting tendency which we have so continuously remarked upon. The figures for these departments are given below:—

	Sept., 1882	Sept., 1883
Salts	cwt. 617,539	624,365
Other chemicals	value £189,869	£195,545
	£204,802	£169,995

MINCING LANE, October 13.

THE improved position of our markets has been fairly maintained, although recent events have tended to check business to a certain extent, and have created a feeling of general mistrust which comes unfortunately just as we appear to be settling down to a happier state of things.

The failure of the old-established firm of Messrs. Suse & Sibb, merchants, of 35 Lime Street, with liabilities estimated at not less than half a million sterling, has been announced. This house, established in the year 1815, for many years enjoyed the highest reputation as a mercantile firm, and the present difficulties are understood to have arisen from the causes which have of late years weakened so many of the old houses, coupled with some very heavy losses experienced in the foreign banking department. We understand that the principal creditors of the firm are abroad, and therefore hope that no consequent effects will have to be felt here.

THE reduction in the bank-rate on September 27, to 3 per cent., is an element in favour of increasing trade.

THE Drug sales on the 4th inst. showed altogether more animation than has usually been the case of late, and a very fair quantity of the goods offered passed the hammer.

ACE.—Of 124 cases Cape offered in last sales, 88 cases sold; prices varying from 35*s.* to 50*s.* 6*d.*

ALUM.—There is a good demand for home trade at 6*l.* per ton in lump, and 6*l.* 10*s.* ground in bags.

ALUMINUM is dearer at 82*s.* 6*d.* to 85*s.* for finest.

ALUMINUM easier at 21*l.* 10*s.* per ton. There is however a firm tone now in the article and little only offering in public sales, thus the importer's position is strengthened and an increase of demand might bring about a reaction in price at a moment. REGULUS at 39*l.* per ton offers so little inducement to the refiners as to render them indifferent whether to sell or no.

ANTHRACITE is unchanged at 10*s.* 9*d.* per cwt, landed for powder.

BAKING SODA in last Tuesday's sales, although a very reduced quantity was offered, failed to make any improvement. Price unchanged, and only a very moderate quantity sold.

BAKING POWDER maintains its position, and up to the present the reduction of 10 per cent. in the output agreed upon by the various manufacturers appears to have had very successful results. 9*l.* 10*s.* to 10*l.* per ton is the present price, and for contracts for 1884 delivery a little more is asked.

BALE.—A fair amount of trade doing at 58*s.* 6*d.* per cwt. net, 61*s.* less 2½ per cent. per cwt.

CUMBA ROOT continues to fail in finding buyers, and in last sales 160 bags dull offered were all bought in at 16*s.* to 19*s.* per cwt.

COMPILE FLOWERS.—Good new ordinary flowers are now worth 51*s.* per cwt., whilst some extra fine are obtain-

able at 56*s.* There is a steady demand, and an inclination towards firmness on the part of holders. The stock of old flowers is almost nil, and for what little remains 15*s.* to 42*s.* 6*d.* per cwt. is paid according to quality. Although we do not expect to see such an advance in this article as took place at this time last year in consequence of the hop famine, still an advance in prices would not surprise us, as from all reports it is doubtful whether this year's crop (by no means a plentiful one) will prove sufficient to meet the demand throughout the season.

CAMPOR.—About 300 cases new China were sold in public sale last week at 60*s.* per cwt. English refined unchanged at 1*s.* per lb. in bells. French, 11*d.* per lb. saucers.

CARDAMOMS steadily maintain values: Malabar at 7*s.* 6*d.* per lb.; Mangalore, bleached, 8*s.* 6*d.* to 10*s.* per lb.

CHIRETTA quiet and without demand at 3½*d.* to 4*d.* per lb. nominally.

CLOVES.—Although offered lately in smaller quantities in public sales, prices have given way to 6½*d.* per lb. for fair Zanzibar.

COCHINEAL.—There has been more business doing, and deliveries one week reached 248 bags. There is no improvement in values, however, which are: Lima and Mexican 8*d.* to 9*d.* silver; 9*d.* to 11*d.* black, per lb.; Teneriffe, 9*d.* to 11*d.* silver; 11*d.* to 1*s.* 9*d.* black, per lb.

COD LIVER OIL is no stronger, as proved by the fact of 137 casks being all bought in at public sales at prices varying from 7*s.* to 14*s.* per gallon.

CREAM OF TARTAR flat at reduced price of 131*s.* per cwt. for firsts.

CUBERS keep very steady. In last sales 104 bags, newly arrived, partly grey and stalky, sold readily at 12*l.* to 12*l.* 2*s.* 6*d.* per cwt., and it is now ascertained beyond doubt that the recent volcanic eruption in Java seriously injured, and in some cases utterly destroyed the plantations. Good quality are worth 12*l.* 15*s.*, and very scarce.

ERGOT OF RYE is in a slightly improved position, 31 bags Russian having recently found buyers at 7*d.* to 7½*d.* per lb.

ESSENCE OF LEMON is very quiet, at 5*s.* 6*d.* to 7*s.* 6*d.* per lb. according to quality.

GALLS.—China and Japan sorts are quite without demand. Turkey are worth 40*s.* to 57*s.* 6*d.* per cwt. according to colour.

GENTIAN ROOT is quiet here, although advices from the Continent speak of a rise as being probable.

GLYCERINE.—The lack of business continuing, prices are again easier, and best 1260 chemically pure quality is now quoted 77*s.* 6*d.* per cwt.

IODINE unchanged at 4*d.* per oz., resublimed 6*d.*

IPECACUANHA.—Prices are irregular although taken generally somewhat higher, and some unusually fine quality sold in last drug sales at 5*s.* 5*d.* per lb.

ISINGLASS.—At the monthly sales held on September 25, only the very small quantity of 75 packages Bombay, 121 cases Penang, and 37 cases Saigon were offered, and of which only 70 sold as follows: Bombay purse and good sorts old tongue at higher prices, Penang less steady, Kurrachee slightly dearer.

The next sales are fixed for October 23.

JALAP is easier, the better qualities failing to find buyers at 10*d.* to 11*d.* per lb.

LEMON JUICE is lower, and holders in Messina have been obliged to accept 22*l.* 10*s.* per pipe f.o.b., whilst for shipment next year 21*l.* 5*s.* would be accepted.

MORPHIA SALTS, 5*s.* 6*d.* per oz., with only a moderate trade doing.

OPUM.—Without any material change in prices some very considerable business has recently been done in shipping qualities, but in the manufacturing sorts there is no improvement to report.

OILS.—Aniseed unchanged, at 7*s.* 8*d.* per lb.; Citronelle steady, at 1½*d.* per oz. American Peppermint Oils are firmer—H. G. Hotchkiss at 13*s.* 3*d.*; Hale & Parshall's, 12*s.* 9*d.* per lb. MENTHOL CRYSTALS have further advanced, and are now making fancy prices. The new crop should however arrive here within the next three months' time, and we are informed on good authority that, owing to the appreciation of this article now as a neuralgic remedy in Europe, although hitherto but a by-product in the manufacture of Japan peppermint oil, it will now become a staple industry. It is gratifying in these days of prejudice to see how rapidly

the good properties of this little article have become appreciated by the public generally.

OTTO OF ROSES.—A steady business is doing at unchanged prices of 15s. to 38s. per Turkish oz., and advices from Constantinople to date report a firm feeling as existing on the Turkish markets. The stock also being small and firmly held, we do not expect to see any relaxation of prices.

PIMENTO.—Although deliveries continue large, reducing stock to less than last year's figures, the price is lower, and fair quality is now obtainable at 27s. 8d. per lb.

POTASH.—*chlorate*, 6½d. spot, 7d. forward delivery with a firm market and moderate business done. *Prussiate* slow of sale at 9½d. to 10½d. per lb. according to make. *Bichromate*, 5½d. per lb.

POTASSIUM IODIDE.—English makes 5s. per lb., with only a moderate trade doing. Foreign makes probably a trifle less.

QUASSIA.—24 tons were sold last week without reserve at 30s. to 32s. 6d. per ton.

QUICKSILVER. at the reduced price of five guineas per bottle, entirely fails to attract the attention of any but actual consumers.

QUININE.—"Anyhow" is the only word we can find to express the present position of this extraordinary article. A great deal continually meets the ear about the reported combination of manufacturers, and the American trade journals in a most conclusive manner account for the present stagnation in the article as the natural result of the clearing off of all secondhand parcels before the operations of the "Combination" come into effect, but we fear if they wait until secondhand lots cease to be offered they will have to wait a very long time; for, taking for granted that the "Combination" were to draw a hard and fast line and sell only to consumers in the future, what is to prevent a druggist from making a contract with the 'combination' and afterwards re-selling wherever he thought fit? Moreover it is quite open to others to commence the manufacture of quinine, either in this country or abroad. Already rumours of this sort are being circulated, and most assuredly neither the men nor the capital will be wanting should artificial means succeed in rendering the profit sufficiently attractive. Prices are unchanged; Howard's, 8s. in vials; French, 1 cz. vials, 7s. 6d.; German, in tins, 7s. 3d. to 7s. 6d. per oz.

SAFFRON is higher on the other side, where a rise of 5 to 10 per cent. has taken place. Good Valencia sorts are worth 40s. to 44s. per lb. Alicante varieties, 25s. to 30s.

SANTONINE, 11s. 6d. per lb. in quantity.

SODA CRYSTALS.—After giving way a little, prices are now again firm at 3l. 9s. per ton. ex. ship. *Ash* is slow of sale at 1½d. per cent. per cwt. landed. *Bicarbonate* steady at 8s. per cwt. landed. *Caustic* is in good demand for export, and prices are higher, at 9s. 6d. per cwt. for cream, and 9s. 9d. per cwt. white.

SULPHATE OF AMMONIA, 16l. 10s. to 17l. per ton—not much business doing.

SULPHATE OF COPPER has continued scarce and in good demand; price has advanced to 23s. 6d. per cwt. for ordinary first quality.

VANILLOES are dearer about 10 per cent. all round; middle to long beans 10s. 6d. to 25s. per lb.

WAX CARNAUBA has reached the high figure of 6l. 2s. 6d. per cwt. paid.

OPIMUM.—Messrs. A. LAVINO & Co., Smyrna, report (Oct. 1883):—"The market appears to be in a waiting attitude on the part of both buyers and sellers, with little disposition to press stocks for sale and an unwillingness to buy beyond current wants. Sales aggregate 209 baskets at unchanged prices, of which 73 were for shipment to China and the Straits Settlements.

A change for the better in this market can hardly be expected before a revival is noticed in the American market; the prospects for this, however, are not regarded as favourable. China alone could offer an important outlook, but for that purpose quotations will have to be shaded somewhat, as our descriptions can only find their way to the East to a large extent when invoiced at figures below 11s. f.o.b.

Total arrivals since June 1: 2,122 baskets, against 1,599 for the same period in 1882. Receipts show a good deal of irregularity this year, supplies from some of the most largely

producing districts being kept back by the Government officials owing to some difficulty with tithe-collectors.

Arrivals at Constantinople are coming in more freely, and amount to 1,100 baskets against 650.

We may here state that the latter market has acquired of late years a greater importance owing to its receiving the entire crop of the Malatia and Tokat districts, the produce of which, usually styled "soft shipping" Opium, fetches such high prices that growers are yearly increasing their production. This description of opium goes almost exclusively to Peru and other South American markets, to be brought being carried on through London houses.

We now quote:—

Boghadtitch new crop	13s. 9d.	
Yerli	12s. to 12s. 4d.	per lb. f.o.
Current Drug	11s.	Smyrna
Telikenti (refuse)	9s. 7d. to 9s. 9d.	
Old Opium (1882)	10s. 9d. to 11s.	

Concerning the factory for making Santonine, near Iasak kend, we are further informed by the European agent Mr. J. D. Bieber of Hamburg, that the buildings are going on favourably, and that the machinery is on the way to Constantinople; but the great difficulties of transport on camels and mules, which occasioned such a high freight on the Sem. Santonica, prevail in a still greater measure on the transport of the heavy machinery, and it will therefore be nearly a year before the first Santonine from this factory can be expected in the European market.

Prices are at present so very much reduced by the sale of the large quantities of Sem. Santonica stored up in Russia, that any new reduction of the price of Santonine is not to be expected by the opening of the new factory; on the contrary, if any sudden demand should come from the East, a material rise of the price is almost certain.

Sem. Santonica cannot come forward from Turkey at the present prices, which are only about 75 per cent. of the freight paid for the camel transport through the desert, and at this year's Nishny Novgorod fair there was not a pound of Sem. Santonica offered.



CAFE VIERGE.

UNDER this title Messrs. Allen & Hanbury and Rowland Co. have brought out jointly an essence of coffee which really does give satisfaction. It has no sour taste, but instead diffuses in a high degree the purest coffee aroma. One or two teaspoonfuls added to a cup of boiling water make one of the most tempting of beverages.

WILLIAMS' PATENT IMPROVED GLASS SYRINGE.

THE novelty in these syringes consists in the substitution for the cork generally used of a solid plug of hard wood made to fit the tube watertight by means of a broad india rubber band. This is a decided improvement. The plugs are made of cocus wood (strongly recommended), boxwood, ebony, vegetable ivory, &c. The syringes are made by Mr. Williams, of Bow.

FIELD'S POCKET INHALER.

IN a neat little package the inventor of this mature apparatus supplies for sale at a shilling a little boxwood inhaler, in shape somewhat similar to a cigarette holder, into the tube of which is packed a small piece of eucalypti. There is a small phial of an inhalant of phenic character, and for use it is only necessary to moisten the sponge with this and inspire the vapour through the tube. It is recommended for cases of irritation of the throat, bronchitis, &c. The manufacturer is Mr. F. J. D. Field, 197 Blackfriars Road.

Monthly Price Current.

prices quoted in the following list are those actually obtained in the London Market for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

EMICALS.

	Last Month		This Month	
	s. d.	s. d.	s. d.	s. d.
Acetic..... per lb.	0 2½	to 0 2½	0 2½	to 0 2½
pure..... "	0 5	0 9	0 5	0 9
glacial..... "	0 8	1 1	0 8	1 1
Benzoic Sublimate.....	0 0	3 6	0 0	3 6
Ex Gum. .. per oz.	0 0	0 6½	0 0	0 6½
Citric..... "	1 8½	0 0	1 8	0 1 8½
Gallic..... "	3 2	3 6	3 2	3 6
Hydrochloric..... per cwt.	4 6	7 6	4 6	7 6
Nitric..... per lb.	0 3	0 3½	0 3	0 3½
Oxalic..... "	0 5½	0 6	0 6	0 0
Sulphuric..... "	0 0½	0 1	0 0½	0 1
Salicylic..... "	6 9	9 6	6 9	9 6
Tannic..... "	1 4	2 9	1 4	2 9
Tartaric, English.....	1 7½	0 0	1 7	0 0
foreign..... "	1 6½	0 0	1 6½	0 0
STIMONY, crude..... per cwt.	22 0	0 0	21 6	0 0
star..... "	40 0	0 0	39 0	0 0
USNIC, lump..... "	24 6	0 0	24 6	0 0
powder..... "	10 6	10 9	10 6	11 0
LMSTONE, rough..... "	8 0	8 6	8 0	8 6
roll..... "	8 9	10 0	8 9	10 0
flour..... "	10 0	12 6	10 0	12 6
YERINE, German.....	80 0	55 0	77 6	80 0
refined..... "	40 0	45 0	40 0	45 0
crude brown..... "	8 0	8 2	8 0	8 2
DOFORM..... per lb.	0 4	0 0	0 4	0 0
ONE, dry..... per oz.	0 8	0 0	0 6	0 0
resublimed..... "	0 10	1 4	0 10	1 4
GNESIA, calcined .. per lb.	6 0	0 0	5 0	0 0
Hwds. "	107 6	0 0	105 0	112 6
URCURY..... per bott.	2 11	2 11½	2 11	2 11½
ECIPITATE, red..... per lb.	2 10	0 0	2 10	0 0
white..... "	1 8	2 0	1 8	2 0
SSIAN BLUE..... "	12 6	0 0	11 6	0 0
STONINE..... "	7 6	0 0	10 0	0 0
UCINE..... "	21 6	0 0	21 6	0 0
THOL..... "	120 0	0 0	120 0	0 0
LTS—	130 0	0 0	120 0	125 0
lum..... per ton	0 6½	0 0	0 6½	0 0
powder..... "	600 0	760 0	600 0	760 0
Ammonia:	330 0	310 0	340 0	360 0
Carbonate..... per lb.	83 0	96 0	83 0	96 0
Hydrochlorate, crude, white..... per ton	70 0	95 0	70 0	99 0
Sulphate..... "	38 0	42 0	33 0	42 0
Sol, Cape..... per cwt.	9 9	10 0	7 6	0 0
Red..... "	58 0	62 0	58 0	62 0
Operto, red..... "	2 6	0 0	2 6	0 0
aching powder..... per lb.	4 5	4 7	4 5	4 7
ax, British refined..... "	5 6	8 0	5 6	8 0
omel..... per lb.	20 8	21 0	20 6	21 0
oral hydrate..... "	55 0	0 0	55 0	0 0
Liebreich's..... "	1 11	0 0	1 11	0 0
om Salts..... "	132 0	0 0	131 0	133 0
uber Salts..... "	110 0	0 0	112 0	0 0
mesia: Carbonate..... "	4 0	6 0	4 0	6 0
ond, Hwds. "	4 0	5 0	4 0	5 0
phie Murias..... "	40 0	0 0	40 0	0 0
ephorus..... per lb.	72 0	0 0	72 0	0 0
ash..... "	6 0	0 0	5 6	7 0
chromate..... "	2 3	2 4	2 3	2 4
carbonate..... "	0 5	0 0	0 5	0 0
Potashes, Canada, 1st sort..... per cwt.	29 0	0 0	29 0	0 0
Pearlashes, Canada, 1st sort..... "	46 0	48 6	46 0	46 8
chlorate..... per lb.	0 6½	0 0	0 6½	0 7
russiate..... "	0 10	0 0	0 9½	0 11½
red..... "	1 11	2 0	1 11	2 0
ulphate..... per cwt.	10 6	11 0	10 6	11 6
assium:				
romide..... per lb.	1 8	0 0	1 8	0 0
loride..... per cwt.	9 0	0 0	9 0	0 0
dide..... per lb.	5 0	0 0	5 0	0 0
line:				
ulphate, British, in bottles..... per oz.	8 0	0 0	8 0	0 0
ulphate, French..... "	7 6	0 0	7 8	0 0
ulphate, German .. "	7 6	0 0	7 6	0 0
Acetos..... per lb.	0 8½	0 0	0 8½	0 0
Ammoniac, British per cwt.	44 0	46 0	44 0	46 0
petre:				
Bengal, 6 per cent.	19 6	0 0	18 9	19 0
or under..... "				

Saltpetre:—(cont.)

	Last Month		This Month	
	s. d.	s. d.	s. d.	s. d.
Bengal, over 6 per cent..... per cwt.	0 0	to 19 0	18 0	to 18 6
British, refined..... "	24 0	25 0	24 0	25 0
Soda: Bicarbonate..... "	7 9	8 0	7 9	8 0
Hwds. "	45 0	0 0	45 0	0 0
Carbonate:				
Soda Ash..... per deg.	0 1½	0 1½	0 1½	0 1½
Soda Crystals .. per cwt.	3 6	0 0	3 4½	0 0
Caustic..... "	9 3	9 6	8 9	9 3
Hyposulphite..... "	8 0	8 6	8 0	8 6
Nitrate..... "	12 6	0 0	11 3	0 0
Zinc Sulphate..... "	12 0	14 0	12 0	14 0
SUGAR OF LEAD, White..... "	30 0	34 0	30 0	34 0
Brown..... "	26 6	0 0	26 6	0 0
VERDIGRIS..... per lb.	0 10	1 0	0 8	1 0
VERMILION, English .. "	2 3	0 0	2 3	0 0
China..... "	2 5	0 0	2 4	0 0
DRUGS.				
ALOES, Hepatic..... per cwt.	80 0	140 0	70 0	130 0
Socotrine..... "	60 0	190 0	60 0	190 0
Cape, good..... "	60 0	55 0	50 0	59 8
Inferior..... "	45 0	50 0	40 0	50 0
Barbadoes..... "	60 0	150 0	60 0	150 0
Curaçoa..... "	43 0	120 0	50 0	100 0
AMBERGRIS, grey..... per oz.	60 0	130 0	75 0	90 0
BALSAM—				
Canada..... per lb.	2 2	0 0	2 2	0 0
Capiwi..... "	2 0	2 2	2 4	2 5
Peru..... "	10 0	10 6	9 6	10 0
Tolu..... "	2 0	2 1	2 4	0 0
BARKS—				
Canella alba..... per cwt.	25 0	27 6	25 0	27 6
Cascarilla..... "	10 0	23 0	23 0	0 0
CINCHONA—				
Peru, gray..... per lb.	0 9	1 10	0 9	1 10
Calisaya, flat..... "	1 2	2 0	1 3	2 0
" quill..... "	3 9	8 0	4 0	7 0
Cathagen..... "	0 6	2 8	0 6	2 8
Columbian..... "	0 8	4 0	0 8	4 0
Cuprea..... "	0 9	2 0	0 6	1 10
New Granada..... "	1 0	4 0	1 0	4 0
Pitayo & Maracaibo..... "	0 6	1 10	0 6	1 10
Red..... "	2 0	9 0	2 0	9 0
East India, crown..... "	1 0	4 6	1 0	5 0
" red..... "	0 6	3 10	0 6	3 6
BUCHU LEAVES..... "	0 2	1 4	0 2	1 0
CAMPHOR, China..... per cwt.	60 0	0 0	60 0	0 0
Japan..... "	60 0	62 6	60 0	65 0
Refin. Eng..... per lb.	1 0	0 0	1 1	0 0
Tablets..... "	1 1	0 0	1 2	0 0
CANTHARIDES, China..... "	2 6	3 0	2 6	3 0
Russian..... "	2 9	4 0	3 9	4 0
CAMOMILE FLOWERS .. per cwt.	20 0	56 0	20 0	70 0
CASTOREUM..... per lb.	22 0	32 0	22 0	32 0
CHIRETTA..... "	0 3½	0 4	0 4	0 5
DRAGON'S BLOOD, lp. per cwt.	70 6	240 0	70 0	240 0
ERGOT OF RYE..... per lb.	0 8	1 0	0 7½	0 10
FRUITS AND SEEDS (see also Seeds and Spices)				
Anise, China Star..... per cwt.	95 0	100 0	95 0	100 0
" Russian..... "	20 0	30 0	20 0	30 0
Beans, Tonquin..... per lb.	3 0	5 6	3 0	5 0
Cardamoms, Malabar, good..... "	5 0	8 0	6 0	10 0
Inferior..... "	4 0	4 6	4 0	5 0
Aleppy..... "	4 6	6 0	4 0	6 0
Madras..... "	2 0	4 0	2 0	4 0
Ceylon..... "	2 0	2 10	2 0	2 10
Malabar sorts .. "	4 0	7 0	4 0	7 0
Cocculus Indicus .. per cwt.	11 0	13 0	11 0	13 0
Colocynth, apple .. per lb.	0 10	1 3	0 10	1 3
Cubebs..... per cwt.	200 0	240 0	230 0	255 0
Cumin..... "	30 0	4 0	30 0	34 0
Fenugreek..... "	14 0	0 0	14 0	0 0
Juniper Berries .. "	8 6	11 0	8 6	11 0
Nux Vomica..... "	9 0	12 6	9 0	12 0
Tamarinds, E. India .. "	8 0	12 0	8 0	12 0
West India..... "	14 0	18 0	15 0	17 6
Vanilla, large .. per lb.	18 0	27 6	20 0	29 0
Inferior..... "	8 0	15 0	8 0	18 0
FLOWERS—Dalmatian..... "	60 0	90 0	60 0	90 0
Caucasian..... "	95 0	0 0	95 0	0 0
HONEY, Chili..... per cwt.	39 0	52 0	39 0	52 0
Jamaica..... "	30 0	40 0	30 0	40 0
IPERCACUANHA..... per lb.	3 0	5 0	3 0	5 6
ISINGLASS, Brazil..... "	2 3	4 6	2 0	4 9
Tongue sort..... "	2 6	5 6	2 0	5 3
East India..... "	0 5	4 9	0 6	5 0
West India..... "	2 3	4 6	2 6	4 5
Rus, leaf..... "	7 0	10 3	7 0	10 8
Simovia..... "	2 2	2 4	2 2	2 4
JALAP, good..... "	0 9	0 11	0 10	0 11
Infer. and stems .. "	0 7	0 9	0 7	0 8
LEMON JUICE..... per deg.	0 0	0 0	0 0	0 0
LIME JUICE..... per gall.	1 6	0 0	1 8	0 0
LIQUORICE, Spanish..... per cwt.	55 0	160 0	55 0	100 0
Liquorice Root..... "	10 0	25 0	12 0	20 0
MANNA, flaky..... per lb.	4 6	5 0	4 6	5 0
MUSK, Tonquin pod .. per oz.	67 6	87 6	65 0	80 0
Grain..... "	40 0	70 0	35 0	60 0
Yunan pod..... "	40 0	50 0	40 0	50 0
OILS (see also separate list)				
Almond, expressed .. per lb.	1 3	1 5	1 3	1 5
Castor, 1st pale..... "	0 4½	0 0	0 4½	0 0
" second..... "	0 3½	0 0	0 3½	0 0
Cod-liver..... per gall.	6 0	16 0	8 0	16 0

	Last Month		This Month	
	£ s. d.	to	£ s. d.	to
Essential Oils:				
Almond	30 0	to 0 0	30 0	to 0 0
Anise-seed, star ..	7 7	7 9	7 7	7 8
" German, &c. "	8 0	14 0	8 0	13 0
Bergamot	6 0	8 0	6 9	8 0
Cajeput	3 0	3 3	3 3	0 0
Caraway	5 6	0 0	5 6	0 0
Cassia	3 10	0 0	4 0	4 4
Cinnamon	1 6	2 6	1 9	2 6
Cinnamon-leaf	0 2½	0 3	0 2½	0 0
Citronelle	0 1½	0 0	0 1½	0 0
Clove	4 6	4 9	4 6	5 0
Juniper	1 6	2 0	1 6	2 0
Lavender, Exotic ..	6 9	8 6	6 9	8 6
" Mitcham ..	130 0	0 0	130 0	0 0
Lemon	4 6	6 6	5 6	7 6
Lemon-grass	0 1½	0 0	0 1½	0 0
Neroli	12 6	0 0	7 0	0 0
Nutmeg	0 8	0 0	0 8	0 0
Orange	12 0	0 0	12 0	0 0
Otto of Roses	15 0	38 0	18 0	38 0
Patchouli	1 4	2 6	1 4	2 0
Peppermint:				
American	11 9	12 3	12 0	0 0
(H. G. Hotchkiss) ..	13 3	0 0	13 3	13 6
English	30 0	32 0	25 0	30 0
German	8 0	15 0	8 0	14 0
Japan	7 0	9 0	7 0	9 0
Menthol crystals ..	20 0	25 0	30 0	40 0
Rosemary	2 6	3 9	2 6	3 9
Sassafras	2 6	0 0	2 6	0 0
Spearmint	12 0	14 0	12 0	14 0
Thyme	2 6	0 0	2 6	0 0
Mace, expressed	0 2	0 0	0 2	0 0
OPIMUM, Turkey	14 0	18 0	17 0	20 0
" inferior	10 0	13 6	12 0	15 0
QUASSIA (bitter wood) ..	40 0	50 0	30 0	35 0
RHUBARB, China, good				
and fine	2 9	4 4	2 9	4 4
" Middling to fair ..	1 0	2 6	1 0	2 6
ROOTS—Calumba	42 0	0 0	16 0	30 0
China	20 0	0 0	20 0	0 0
Cus-Cus	20 0	21 0	30 0	21 0
Galangal	26 0	28 0	26 0	28 0
Gentian	28 0	0 0	30 0	0 0
Orris	23 0	50 0	23 0	50 0
Pellitory	42 0	60 0	42 0	60 0
Pink	1 6	0 0	1 6	0 0
Rhatany	0 5	0 6	0 5	0 6
Seneka	2 5	2 6	2 4	2 6
Snake	1 6	0 0	1 6	0 0
SAFFRON, Valencia	39 0	43 0	39 0	44 0
Alicante	25 0	30 0	25 0	30 0
SARSAPARILLA, Lima ..	0 6	0 9	0 6	1 0
Gnayaquil	1 2	1 5	1 2	1 5
Honduras	1 3	1 5	1 3	1 5
Jamaica	1 5	1 9	1 3	2 0
SASSAFRAS	0 0	0 0	0 0	0 0
SCAMMONY, Virgin	30 0	35 0	32 0	35 0
" second and ordinary ..	15 0	28 0	15 0	28 0
SENNA, Bombay	0 2½	0 0	0 2½	0 0
Tinnivelly	0 3	1 2	0 3	1 2
Alexandria	0 9	1 6	0 9	1 6
SPERMACEETI, refined ..	0 11	1 3	1 3	0 0
" American	0 9½	0 40	0 10½	0 0
SQUILLS	0 3	0 3½	0 1	0 2½
GUMS.				
AMMONIAC, drop	2 10	3 5	2 10	3 6
ANIMI, fine washed	17 10	20 0	18 0	20 0
" sorts	8 0	13 0	8 0	13 0
ARABIC, pale picked	1 13	2 0	1 10	2 0
" sorts, mid. to fine ..	1 5	1 10	1 5	1 10
TURKEY, pick. gd. to fin.	5 0	9 0	5 10	7 0
" second & inferior ..	2 5	4 10	2 5	2 10
" sorts	2 10	3 5	2 0	2 15
ASSAFETIDA, cm. to fin.	2 6	3 10	0 15	4 0
BENJAMIN, Siam, 1st				
" & 2nd	20 0	40 0	25 0	42 0
Sumatra	2 10	12 0	2 10	12 0
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
COPAL, Manila	25 0	52 0	25 0	52 0
Angola, red	145 0	152 6	145 0	152 6
DAMMAR, pale	77 0	82 6	60 0	85 0
EUPHORBIA	17 0	20 0	17 0	20 0
GALBANUM	0 3	0 10	0 3	0 10
GAMBOGE, picked pipe ..	260 0	320 0	260 0	340 0
GUAIACUM	0 9½	2 0	0 9½	2 0
KINO	45 0	0 0	45 0	0 0
KOWRIE, sorts	65 0	80 0	65 0	80 0
" selected	105 0	240 0	90 0	220 0
MASTIC, picked	2 9	3 6	3 0	3 6
MYRRH, good and fine ..	120 0	180 0	200 0	230 0
" ordinary to fair ..	80 0	140 0	80 0	140 0
OLIBANUM, p. drop	40 0	45 0	40 0	45 0
" amber & yellow ..	36 0	0 0	36 0	0 0
SENEGAL	45 0	0 0	40 0	45 0
SANDARAC	55 0	130 0	90 0	110 0
SHELLAC, Orange	115 0	127 6	90 0	140 0
" Liver	84 0	99 0	75 0	80 0
THUS	25 0	0 0	25 0	0 0
TRACACANTH, leaf	200 0	300 0	200 0	260 0
" in sorts	20 0	180 0	20 0	180 0

OILS.

SEAL, pale	£ 37 0	£ 0 0	£ 36 0	£ 0 0
------------------	--------	-------	--------	-------

Oils:—(cont.)

SEAL, yellow to tinged ..	per tun	35 0	to 0 0
" brown	33 0	0 0	0 0
SPERM	68 0	70 0	0 0
COD	36 0	0 0	0 0
WHALE, South Sea, pale	30 0	34 0	0 0
" yellow	28 0	0 0	0 0
" brown	27 0	0 0	0 0
Sardine	25 0	0 0	0 0
OLIVE, Seville	per ton	37 10	38 0
" Gioja	36 0	37 0	36 0
" Levant	36 0	0 0	36 0
" Mogador	35 10	33 0	35 10
" Spanish	35 0	0 0	35 0
" Sicily	37 0	0 0	37 0
COCONUT, Coccin	38 0	0 0	38 10
" Ceylon	33 10	0 0	34 0
" Mauritius	35 0	0 0	35 0
PALM, fine	41 10	0 0	39 0
LINSEED	19 15	20 5	20 10
RAPESEED, English, pale	34 5	34 10	35 10
" brown	32 5	32 10	35 0
COTTONSEED	30 0	0 0	30 0
LARD	55 0	58 0	63 0
TALLOW	25 0	47 0	25 0

TURPENTINE, American ..	per cwt.	30 0	0 0
PETROLEUM, refined ..	per gall.	0 6½	0 7½
" Spirit	0 6	0 7	0 6½

SEEDS.

CANARY	per qr.	£ 0 0	£ 58 0
CARAWAY, English	per cwt.	0 0	0 0
" German, &c. "	23 0	26 6	23 0
CORIANDER	10 0	21 0	10 0
HEMP	36 0	38 0	38 0
LINSEED, English	0 0	0 0	0 0
" Black Sea & Azof ..	40 0	0 0	40 0
" Calcutta	40 6	0 0	40 6
" Bombay	41 0	0 0	40 6
" St. Petersburg	37 0	58 0	35 0
Mustard, brown	per bshl.	10 0	15 0
" white	8 0	14 0	8 0
POPPY, East India	per qr.	43 0	0 0

SPICES.

CASSIA LIGNEA	per cwt.	£ 34 6	£ 35 0
" Vera	21 0	28 0	24 0
" Buds	34 0	36 0	40 0
CINNAMON, Ceylon:			
" 1st quality	per lb.	1 0	2 5
" 2nd do.	0 8	2 0	1 0
" 3rd do.	0 9	1 9	0 8
Tellicherry	0 0	0 5	0 0
Chips	0 2½	0 5	0 2½
CLOVES, Penang	1 7	1 10	1 7
Amboyna	0 10	0 11½	0 10
Zanzibar	0 7	0 7½	0 6½
GINGER, Jam., fine	per cwt.	70 0	160 0
" Ord. to good	50 0	65 0	48 0
African	42 6	0 0	35 0
Bengal	40 0	0 0	38 0
Malabar	0 0	0 0	0 0
Cocbin	45 0	112 0	40 0
PEPPER, Black, Malabar ..	per lb.	0 6½	0 7½
" Singapore	0 6½	0 0	0 6½
" White	0 8½	0 0	0 9½
Cayenne	0 7	1 0	0 7
MACE, 1st quality	1 7	2 3	1 7
" 2nd and inferior ..	1 3	1 4	1 4
NUTMEGS, 78 to 80 to lb.	2 10	3 9	2 10
" 80 80	2 9	2 10	2 9
" 132 95	2 0	2 6	2 0
PIMENTA	0 3½	0 0	0 2½

VARIOUS PRODUCTS.

COCHINEAL—				
Honduras, black	per lb.	1 1	1 3	1 2
" silver	0 11	1 1	1 1	1 2
Mexican, black	0 9	1 0	0 9	1 0
" silver	0 9	1 0	0 8	0 9
Tenerife, black	1 1	1 4	0 11	0 11
" silver	1 0	1 1	0 9	0 11
GALLS, Tky blue	50 0	55 0	50 0	0 0
" China	63 0	0 0	62 0	0 0
INDIGO, Bengal	4 0	7 0	4 0	0 0
" Madras	1 3	6 0	1 8	0 0
" Kurpah	1 10	5 6	2 0	0 0
" Onde	1 9	5 6	1 9	0 0
" Guatemala	3 0	6 6	3 0	0 0
ROSE, American	per cwt.	5 3	12 3	5 6
SOAP, Castile	28 0	0 0	28 0	0 0
SOY, China	per gall.	1 7	0 0	1 7
WAX, Bees, English	per cwt.	£ 0 0	£ 0 0	£ 0 0
" Jamaica	6 0	7 0	6 10	7 0
" East India	£ 2 7	£ 2 8	2 3	2 3
VEGETABLE, Japan	per lb.	0 4	0 6	0 4
Paraffin	12 0	20 0	16 0	0 0
WOOD, DYE, Bar	per ton	£ 3 0	£ 3 12/6	3 10
" Brazil	7 0	20 0	16 0	0 0
" Cam	0 0	6 0	0 0	0 0
" Fustic, Cuba	5 10	5 12/6	5 10	12/6
" Jamaica	6 15	8 10	5 10	0 0
LOGWOOD, Campeachy ..	5 10	0 0	5 10	0 0
" Jamaica	9 0	10 0	10 0	0 0
LIMA, first pile	5 5	0 0	6 0	0 0
RED SANDARS				

Metropolitan Reports.

THE PROSECUTION OF HAMPSTEAD CHEMISTS.

MR. ALFRED PRESTON, of the firm of Messrs. Thomas H. Preston, Preston & King, is also a member of the Hampstead Vestry, and at a meeting of that body held on September 20 he raised the question of the recent prosecution of chemists by that Vestry for the sale of spirits of nitrous ether and tincture of quinine alleged to have been of deficient quality. After inquiring by whose authority the recent prosecutions had been instituted, he moved a resolution that, in future, prosecutions be not entered upon in cases where it may be found on analysis that the specific gravity is not identical with that recommended by the British Pharmacopœia, so far as the spirits of nitrous ether is concerned. Mr. Preston contended that the prosecutions had been, unwittingly on the part of the Vestry, very vexatious. He had had experience as a wholesale druggist of forty years. The London Pharmacopœia ordered spirits of ether, known as sweet spirits of nitre, to have a specific gravity of 850, while the British Pharmacopœia required a specific gravity of 845. He had had many conversations with practical chemists, especially since these prosecutions, and not a single person being an analytical or a pharmaceutical chemist, or any one who in any way understood the matter, but said that the formula of the British Pharmacopœia, respecting spirits of nitrous ether, was a most unsatisfactory one; because, however careful a person might be in making this article at the time of drawing it from the still no one could guarantee that within a few hours, certainly within a few days, the spirit of nitrous ether would state the British Pharmacopœia test. Is it right, then, Mr. Preston said, that chemists, who are compelled to buy this article to put into their bottles, to take out the stopper and sell it in small quantities, should be prosecuted under the adulteration Act. (Hear, hear.) The article deteriorates of itself. Is that adulteration?

Mr. Baines: Yes.

Mr. Preston (warmly): It cannot be called adulteration, and Mr. Baines is so excellent a chemist and can produce an article that will keep, by all means, in the interests of the trade and of the public, let him at once declare it. Men who have made chemistry their study admit they cannot make an article to keep and be used in the ordinary retail way. In these cases Mr. Heisch, our analyst, found a specific gravity of 847. The article therefore differed by two degrees, and for that you have prosecuted honourable men under the Adulteration Act. Respecting the tincture of quinine, the British Pharmacopœia says there is to be 8 grains in every ounce. Mr. Heisch found over 6 grains, and Professor Atfield, who made an analysis for the defendants, found another grain, and added that half a grain would be lost in the analysis. This case had been referred to Somerset House, because there was some doubt in the mind of the analyst as to whether the chemist had proceeded in a perfectly *bona-fide* way. There was high authority for stating that it is an impossibility to find 8 grains in an ounce. He said, therefore, that these cases are decidedly vexatious—(hear, hear)—and he thought that the vestry was bound, as far as possible, to make some reparation, and, as honourable men, to express some regret.

Mr. Baines: No, no.

The Chairman said it would be better if Mr. Preston confined himself to future action in similar cases, and not to say anything about reparation.

Mr. Baines said if Mr. Preston was of opinion that the vestry had done wrong he should meet the matter with a resolution and take a vote.

Mr. Preston: What has been done cannot be entirely repudiated. These cases have been reported in the newspapers, and comments made upon them by writers who know nothing at all about the real facts of the cases. In railway-carriages and elsewhere I have heard these cases spoken of, and the verdict was "Serve them right" for not having sold what they represented to sell. I hope my words will go forth through the Press, and that it may be understood that, although these gentlemen have been ignominiously dragged to a police-court, and that upon technical grounds they may have been fined, still at the same time

they are worthy of the confidence of the public, and that we, so far as we can, should endeavour to restore that confidence. Not one of those persons does business with my house. Therefore, I am not personally interested for the trade itself. I want not only Hampstead, but the whole of the districts of the metropolis, to understand that it is not fair to accuse chemists of adulteration of an article which deteriorates of itself. (Hear, hear.)

Agreeably to the wish of the Vestry, Mr. Preston handed in a notice of motion on the subject for the next meeting of the Vestry.

At the meeting of the Vestry on October 11, Mr. Alfred Preston brought forward the motion of which he had given notice, but requested the permission of the Vestry, as it had been suggested to him it was of too sweeping a character, to substitute the following:—"That in the opinion of this Vestry it is undesirable to prosecute chemists under the Adulteration Act on the article spirit nitrous ether, B.P., provided such article purchased be of not greater specific gravity than that recognised by the London Pharmacopœia, a new Pharmacopœia being in process of publication, and the present form for making the article being recognised as unsatisfactory by the best authorities." Mr. Preston said he felt sure the members of the Vestry would be glad that the analyst at Somerset House had completely confirmed the analysis of Professor Atfield in reference to the tincture of quinine; as, although they were always glad to support their officers, it was of far greater importance that a respectable tradesman should have been declared not to have been guilty of any fraud. He could not understand the Magistrate refusing to allow costs, and trusted the Chairman of the Sanitary Committee would see his way to recommending the Vestry to defray the costs incurred by the defendant. He recapitulated his previous arguments in reference to spirit of nitrous ether, B.P., which, he said, did not make a fair test-article. He believed that public bodies and public men were respected just in proportion to the way in which they exhibit justice towards all classes, and it was, therefore, in the interest of the Vestry, as well as of those more particularly affected by the resolution, to use greater caution in future with regard to this article. Mr. Beeton seconded.

The Chairman of the Sanitary Committee opposed Mr. Preston's motion. The Committee had acted on the advice of their analyst, and though he acknowledged the analyst had been in error with regard to the tincture of quinine, it could not be disputed the spirit of nitrous ether was not such as was required by the British Pharmacopœia, either as regards specific gravity or the quantity of nitrous ether it contained.

Drs. Alford and Greenhill entirely supported Mr. Preston in all his arguments, and the former said from the analysis of the articles upon which the defendants were prosecuted, he had no hesitation in saying no fraud had been attempted, and he should not have hesitated using them for his patients.

The amended resolution was then put, and carried without any division, and amidst applause.

At the Marylebone Police-Court on Sept. 26 Mrs. Jane Allchin, a chemist, of 1A Elizabeth-terrace, Hampstead, appeared in answer to an adjourned summons, taken up by order of the Hampstead Vestry, for selling 3 ozs. of tincture of quinine not containing the proper quantity of sulphate of quinine, viz., eight grains to the ounce.—Mr. Ricketts, appeared to prosecute on behalf of the vestry; Mr. Glaisyer, solicitor, appeared on behalf of the Chemists and Druggists' Trade Association of Great Britain.—The case was before the Court a fortnight ago, when Mr. Heisch, the analyst to the vestry, certified that the sample of quinine which had been submitted to him contained 6.2 grains of sulphate of quinine per ounce.—Professor Atfield, for the defence, gave evidence showing that by the process of analysis adopted by him he found $7\frac{1}{2}$ grains per ounce of sulphate of quinine, and said that the missing half grain per ounce was lost in the process of analysis.—Mr. Ricketts then elected to send a sample to Somerset House to be tested by one of the Government analysts. On the adjournment the certificate of the Somerset House authorities was read, and it stated that the sample contained not less than eight grains of sulphate of quinine.—Mr. Mansfield dismissed the summons.—Mr. Glaisyer asked for special costs, which Mr. Ricketts opposed.—Mr. Mansfield pointed out that the re-

sults of the three analysts all differed, and it was very difficult to know who was right. He should make no order as to costs.

CRICKET.

WESTMINSTER COLLEGE—NEW V. OLD STUDENTS.—
Played at Kew on September 19. Score:—

New Students.	Old Students.
Wootton, b. Horne 5	Leech, J. P., b. Rutherford .. 14
Potter, b. Horne 5	Horne, c. Hare, b. Potter .. 4
Baker, b. Horne 33	Burn, run out 0
Smith, b. Horne 6	Briggs, b. Potter 4
Rutherford, b. Horne 6	Norman, b. Potter 1
Hallam, b. Burn 40	Cockerell, b. Potter 7
Esley, b. Horne 4	Taylor, b. Potter 0
Cartwright, c. Briggs, b. Leech .. 0	Sharpe, b. Potter 0
Hare, G., b. Horne 2	Smalley, not out 12
Mowlar, b. Burn 11	Chappell, run out 0
Stehbing, not out 1	Ellis, b. Potter 0
Extras 16	Extras 8
129	50

BAISS BROS. & CO. V. BURGUYNE & CO.—Match played at Kilburn, September 15, 1883. Score:—

First Innings of Baiss Bros. & Co.	First Innings of Burgoyne & Co.
Welch, b. Jordan 3	Tate, c. Womersley, b. Welch .. 25
West, l.b.w., b. Jordan 10	Fennimore, run out 2
Shenton, run out 6	Pannell, b. Welch 11
Womersley, c. Tait, b. Jordan .. 5	Jordan, st. Shenton, b. West .. 1
Peckover, st. Bew, b. Tait .. 34	Bew, c. Shenton, b. Welch .. 2
Welch, b. Flowerdue 24	Ridd, not out 1
Gibson, c. & b. Tait 0	Russell, not out 1
Ross, not out 6	Flowerdue —
Standing, h. Flowerdue 0	Taylor —
Baiss, b. Jordan 1	Harwood —
Cumberland, c. Harwood, b. Flowerdue 0	Sloder —
Extras 6	Extras 7
95	50

BURGUYNE, BURBIDGES & CO.'S CRICKET CLUB.—This club played eighteen matches during the past season: lost 1, won 12, and 5 were drawn. Barclay & Perkins were the only firm who succeeded in checking the victorious career of this redoubtable club, and they only secured a win by three runs. Maw's Club, Travers & Sons, and Collard & Collard's had to submit twice to defeat, but Baiss Brothers & Co. made a draw.

LONG FIRM FRAUDS.—On September 27, Alfred Bixton (or Buxton), druggist, aged 25, with six others, was convicted of fraudulently obtaining goods, and was sentenced to eighteen months' imprisonment with hard labour. His name is not on the register.

Provincial Reports.

EDINBURGH.

THE EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION will commence its session on October 17, when an inaugural address will be delivered by Mr. Claude F. Henry.

DRUGGISTS' WEIGHTS.—The *Record* of the British Association of Inspectors of Weights and Measures says that since its last (quarterly) issue the Inspector had finished visiting all the chemists' shops, and in 67 per cent. he found unjust weights and measures after having been served with notices to have their weights and measures examined. In one shop a 5 grain weighed 7.7 grains, and there is no doubt it is desirable, and even necessary, that all weights, measures and scales should be under inspection.

MANCHESTER.

MESSRS. BRATBY & HINCHLIFFE'S ANNUAL PICNIC to their employes took place on Saturday, Oct. 6, at Knutsford, some 14 miles from Manchester. The party numbered about 90, including the partners with some friends, together with the workmen, their wives and sweethearts. The party put up at the Royal George Hotel, where dinner and tea were served, the intervals being employed in cricket, bowls, and other amusements. In the evening Mr. J. W. Hinchliffe took the chair, when speeches and songs filled up the time until leaving. The firm were heartily toasted, and Mr. Bratby presented each of the carters with a cheque for 1l. The break-up took place about 10.30.

WEXFORD.

POISONING CASE.—A strange case has occurred here. A young man named Kennedy, who frequently got drunk, was in a liquor shop on September 11, and had several quantities of drink. He seemed weak, and the clerk at last gave him in a glass of porter as much laudanum "as you would serve on the bottom of a tumbler" to make him sleep. The laudanum was in the house to be sold, but he had never sold more than one or two half ounces. The man fell sleep about two hours later, and after he had slept four hours the clerk became alarmed and tried to rouse him. Doctors were sent for, but when they arrived the man was dead. An inquest was held but was adjourned, and the clerk who served the laudanum was arrested and has since been committed for trial.



Balancing Books.

To The Chemist and Druggist—

SIR,—Would you oblige by giving, in your next issue, your opinion as to the best method of striking the year's balance? I have been accustomed to the following. (See enclosed.) Is it reliable? and what portion of the balance should you think it safe to draw for private purposes, &c. supposing the business to be extending?

Allow me to thank you for the valuable counsel you give from time to time in your journal, following which I have increased my own business from 50 to 80 per cent.

October 5.

£	s.	d.		X.	Z.	Full
Stock-in-trade at end of year	514	13	7	Stock beginning of year	1	1
Cash sales	1,274	18	1	Goods bought	1	18
Ledger accounts paid in	345	14	0	Bad debts, estimated	0	18
Accounts owing, so much, less 10 p. cent.	100	0	0	Interest on capital	0	0
Returns, discounts, and allowances	319	0	0	Carriage of goods	7	0
				Postage	15	6
				Advertisements	1	15
				Extra fittings	14	15
				Sundry expenses	17	17
				Wages	12	17
				Rent, rates, taxes, &c.	17	17
				Balance	1	1
	2,554	5	8		2	5

The figures are purely imaginary.

The foregoing would show the result of the year's transaction, always supposing the stock to have been taken accurately in both instances. We would remark, however, that something ought to be allowed for depreciation of fixtures, plant, &c., especially in cases where a manufacturing business is carried on. The way bad debts are shown above is not satisfactory. We presume it is supposed that 5l. has been written off, and the 10l. is doubtful. We suggest the following as a more systematic way of making the balance. To make it more complete we have supposed the manufacturing business is carried on:—

GOODS ACCOUNT.

To Stock-in-trade—first date	By Sales (day-book)
Purchases	Cash-sales (cash-book)
Discount and returns	Discount and returns
Manufacturing wages	Stock-in-trade—last date
Balance = gross profit	

TRADING ACCOUNT.

To Sundry expenses	By Goods account = balance
Advertising	profit
Rent, rates and taxes	
Bad debts	
Interest on capital	
Postage and incidental	
Carriage	
Depreciation of plant, lease, &c.	
Balance = net profit, carried to banking account	

BALANCE SHEET.

To Creditors, as per list from Bought	By Debtors (as per list from Sold)
Ledger	Ledger
Capital	Cash at banker's
Balance, as per trading account	Cash in hand
	Sundry fittings and fixtures
	Plant, machinery, &c.
	Reserve fund to meet contingencies

As to the amount to draw, the answer is obvious. The only safe plan is to make every reserve, allow for interest on capital, and then leave a margin between earnings and expending to the advantage of the former.

Vaseline and Lard—A Dispensing Curiosity.

The Chemist and Druggist—

MR.—Noticing in last month's CHEMIST AND DRUGGIST M. Vijier states that he "found it impossible to get a perfectly homogeneous ointment" in the following prescription:—

	Grammes
Vaseline	40
Ext. rhatan.	4
Ext. bellad.	4

Let me say that I have dispensed the same in various ways, with every way desirable, and obtained a "perfectly homogeneous" ointment. My modes of procedure were as follows:—

Firstly, I rubbed the ext. rhatan. down with a few drops of water to prevent any lumps being present, and mixed it with half the vaseline. I then added the ext. bellad. in the same way, and mixed the two ointments. Secondly, I rubbed down the ext. rhatan. as before, then the ext. bellad., mixed them, and afterwards the vaseline, without the least difficulty. I used a slab and bone knife, not a pestle and mortar, as probably did Vijier; and he may not have taken the precaution to rub down the extracts to a smooth paste with a few drops of water before adding the vaseline.

It is somewhat singular that unless ext. bellad. is rubbed down with water it cannot be nearly so well mixed with vaseline, but forms the black mass mentioned by M. Vijier, which any amount of trituration does not seem to efface.

It may, perhaps, be useful to many of your readers to know that while oleic acid is insoluble in water, water is not altogether insoluble in vaseline. In fact, I have been able to incorporate or dissolve nearly 20 per cent. of water with it (or 100 minims nearly in 3j.). By the addition afterwards of grains of pulv. tragac. ver. I was able to mix 3j. vaseline with 5j. water, which formed a homogeneous product of custard-like consistency.

Yours truly,

GEO. SPENCER.

October 4.

Sullivan's Cement.

The Chemist and Druggist—

MR.—I observe in this month's issue in answer to some correspondent regarding Sullivan's cement. As you are on the wrong track, I take the liberty of writing to you.

This is an amalgam, made up in small pellets, the metal and mercury being mixed. A pellet is gently heated, and an old spoon answers the purpose. A very little heat suffices to soften it. It is then gently pressed to get rid of excess of mercury, and applied. It sets very quickly.

Yours very truly,

JOHN ETTLES.

September 20.

Copies of the Conference Address.

The Chemist and Druggist—

MR.—As one who has taken a great though latent interest in the progress of pharmacy during the past ten years, I most heartily concur with Messrs Attfield's suggestion of appealing to "the mass of the community" by a distribution of the Conference Address. Indeed, I intend that my copy shall come into the hands of every magistrate, medical man, or men who are aspiring for Parliamentary honours in the forthcoming campaign, and being the coroner for this division.

I might suggest that the Secretary of the Society should be instructed to request all local secretaries to make this one effort, as, by acting collectively throughout the country, we shall be reaching at least that part of the community who hold, to a very great extent, our interests at stake.

I regret that our Pharmacy Bill was not more closely associated with the Medical Bill which is shortly to come before the House, for a partnership, even if only a sleeping one, would have been not only more beneficial to medical men and pharmacists, but to the community at large.

A. G. CHAMBERLAIN.

October 8.

MR. J. T.—Our advertisement section contains the information you require.

MR. 116. *Eosine*.—A good treatise on coal-tar products, occupying about 17 pages, appears in Spon's Cyclopædia. You could probably get the paper parts containing that section separately from the publishers, E. & F. S. Charing Cross. Perkin's Cantor Lectures on aniline and coal-tar dyes were published in the "Journal of the Society of Arts" in 1869. Journals can probably still be obtained from the Society, John Street, 4, Phil.

MR. 124. *Indelible Ink*.—F. H. B.—We have more than once published a combined formula for an indelible ink for marking linen, which we can be used with a rubber stamp. Dissolve 12 grains of nigrosine, 12 grains of borax, and 12 grains of aluminium acetate in one ounce of water. Carefully cleanse the fabric from all starch and dressing, and allow time for it to absorb the ink. The marks are not absolutely indelible, repeated washing will remove them, but they are not affected by chlorine of lime, which bleaches silver inks.—THE CHEMIST AND DRUGGIST, 15, p. 464.

Antique Mortars.

To The Chemist and Druggist—

SIR,—The Apothecaries' Company formerly possessed a curious mortar. On the body of the mortar were several figures, such as two griffins as supporters to a tree, and two animals (perhaps antelopes) supporters to another tree, two lions in the same character to a third tree, and two others as supporters to a castle triple towered. Round the rim was the following inscription:—"Veni Creator Spiritus, montes tuorum visita, imple superna gratia que tu creasti pecta. Salve mea Christur. S. T. Wenni." The figure of this mortar is still preserved in the *Gentleman's Magazine* for 1789. The mortar was cracked, and the masters condemned it to be melted down, in about the year 1800.

L. G. SHARPE.

Renovating Sponges.

To The Chemist and Druggist—

SIR,—I have tried your suggestion as to renovating the sponges, and find the following plan completely successful:—Soak for ten minutes in a 2-per-cent. solution of permanganate of potash, then in a 2-per-cent. solution of oxalic acid with the addition of a little sulphuric acid for about half an hour, and finally treat with a 2-per-cent. solution of carbonate of potash for half an hour, wash, and dry. The solution of carbonate of potash produces the yellow colour I particularly wanted. Thinking my experience may be useful to you in case you have another "friend in need" of similar advice, I send this to you, thanking you for your suggestion.

I am, sir, yours truly,

H. CUMBER, JUN.

4 Fountain Street, Greenwich, October 9.

MR. 116/1. *J. R. C.*—The best available general information on flower farming and the distillation of essential oils will be found in Piesse's "Art of Perfumery." In German there is a good work by G. W. Askinson "Die Fabrikation der ätherischen Oele," published by Hartleben, of Vienna, at 3s. See also Mr. Wrenn's article in our February number, and Mr. Mason's in May.

MR. 116/7. *Nemo*.—**Vaseline**.—We believe that no definite information on the bleaching of vaseline has been published. In our last number, page 463, we published a suggestive note from Mr. Leopold Field's lectures on illuminating agents. He says that fuller's earth is capable of rendering the most refractory substances white and transparent. This may prove useful for vaseline. If any readers have had experience we shall be glad to hear it.

MR. 118/15. *J. S.*—The apparatus you refer to did not seem to answer expectations.

MR. 122/15. *Apprentices and Masters*.—X. F. Z. puts a hypothetical case, as follows:—

"Suppose I have an apprentice bound for four years from August 18, 1883, and in October following I enter one of the hospitals with a view to become a medical practitioner, providing an efficient and suitable manager to supervise and conduct my business, &c., during the absence caused, how do I stand in relation to my apprentice, his indentures, and his guardian, &c.?"

The case would depend on the wording of the indentures and on special circumstances. Clearly, if a parent had paid a special fee for the advantage of getting up individual training, and you abandon the duties you had undertaken, there would be a grievance for which the law would provide a remedy. But, in an ordinary case, if you supervised the training of an apprentice, and provided an efficient substitute in your absence, there would not be likely to be any legal difficulty.

MR. 41/115. *Dons*.—The question whether an unregistered person can sell laudanum by simply attaching a patent-medicine stamp to a bottle of it has not been legally decided. The point is, does the stamp make it a patent medicine? If it does, any person can sell the article in such a form. But we do not think a Court would hold that laudanum or other poison was entitled to the exemption simply because of the stamp.

MR. 111/245. *J. J.*—**Wood-stains**.—Much information on this subject is given in "Workshop Receipts," part II., published by E. & F. N. Spon, and reviewed in our last issue.

MR. 115/25. *R. I. E.* wishes to meet with a good formula for phosphorus paste for rats, mice, and blackbeetles—one that will keep and has been proved satisfactory.

MR. 114/22. *Sub Umbra Floresco* asks for a formula for menthol cones. As yet we have seen none in any of the periodicals, but we understand that the basis is a hard ointment containing spermaceti, with a certain proportion of menthol.

MR. 110/59. *J. G. G.* writes that, thinking to preserve some glycerine and rose-water, he added salicylic acid, which immediately turned it quite red. He asks if the colour can be discharged by any simple means. We should be glad if any correspondent could throw light on the matter.

The Parcels Post.

To The Chemist and Druggist.

SIR,—As I believe the following particulars of the working of the parcels post may be of general interest to chemists, I take the liberty of addressing this to you for publication in THE CHEMIST AND DRUGGIST.

Probably, like myself, many retail chemists looked forward to the introduction of that much-vaunted system with anticipations of increased business with decreased expenses for carriage. They must have been grievously disappointed. I have on several occasions been annoyed by delay. The following case will suffice to show there is reason for complaint. On September 19 I ordered by telegram a bottle of cresoline per parcels post from London, thinking it would be the quickest, and for the weight the cheapest, conveyance. I received the invoice on the 21st, showing the parcel had been promptly sent as ordered. I did not receive the parcel until the morning of September 24. The receiving-office had dated the parcel September 20. For some classes of goods such a delay might be of little consequence, but in other cases, such as the present instance—where the article was required for an invalid, to whom it was of the utmost importance to keep it constantly in use—you will see how untrustworthy such a system must be.

I will not trespass on your space to mention other faults of the system, though they are by no means few.

Yours truly,

The Victoria Pharmacy, Workington, September 24.

W. B.

113/36. *G. C.*—**Custard-powder.**—This correspondent has been accustomed to colour custard-powder with turmeric, but the last making had a very strong smell and taste. He wishes for some better colouring matter. We have never heard of the use of anything but turmeric, and know no harmless yellow colouring matter that will take its place. We suggest that some samples of turmeric may have less smell than others. We subjoin two formulae for custard-powder which we believe will prove satisfactory:—

1. Sago-meal, 2 lbs.; powdered turmeric, $\frac{1}{2}$ oz.; bitter-almond powder, cassia, and mace, of each, $\frac{1}{2}$ oz.—*Cooley.*

2. Tragacanth, powdered, 2 oz.; potato-starch, 1 lb.; powdered turmeric, 150 grains; oil of bitter almonds, 30 minims; essence of lemons, 1 drachm. To be put up in ounce packets for one pint of new milk. One packet to be rubbed in a dish with two tablespoonfuls of milk; the rest of the milk boiled with 2 oz. of sugar, and, while boiling, poured gradually into the dish, stirring briskly. Bake as a custard.

110/38. **Fireworks.**—*E. R. W.* wishes to know the composition of the rocket-stars, amber, &c., fired in shells or big rockets, and rising 100 to 200 yards; also of the stars generally fired from saucisson mines, burning with ordinary reddish or yellowish-red fire, but sparkling and burning with a crackling noise, rising only 30 feet to 40 feet. Can any of our readers supply him?

113/23. *Opium* asks for a formula for **Aqueous Tincture of Opium**. It is supplied by the wholesale houses, and is said to contain the same proportion of opium as the B.P. tincture, but less spirit. *Opium* has tried to prepare it with less spirit, but fails to extract the colouring matter, and cannot get it so dark in colour as that sent out by the wholesale houses. He has tried to make it by boiling the opium in water, transferring the whole to a bottle, adding the spirit, macerating, &c. Can any correspondent supply the desired information?

112/60. *Ink.*—*Xenophon* makes ink with galls, iron, gum, and sugar in the cold, and finds that after a few weeks standing, a thick gelatinous film forms over it. He asks if it is better to remove the film, or draw from the tap without breaking it? Is it a defect, and what is the best preservative for ink? Is ink made by cold process inferior to that made with boiling? Does not the boiling affect the starch in the galls? The best information on this subject will be found in an article on page 439 of our volume for 1880, in which many of these questions are anticipated. The object of boiling the galls with water is to convert a considerable part of the tannin into gallic acid. This can be almost equally well effected by exposing the cold infusion to the air for some time, according to the weather. The best preservative for ink is $\frac{1}{2}$ part of sulphuric, or better, 1 part of oxalic acid to 100 parts of ink. Four parts of commercial sulphate of indigo, which is itself an improvement to ink, contain nearly enough acid to preserve it. The gum may be omitted. For full explanations see the paper referred to.

112/25. *F. G. B.*—The literature of tobacco is enormous. In 1879 a bulky catalogue was published of the books in the collection of one gentleman, a Mr. Bragge. We should like to know on what particular branch of the subject you want books before we can give you any definite information where a pamphlet on tobacco can be obtained.

112/38. *Nativ.*—Many hints on the fitting-up of a shop will be found in Parrish's "Pharmacy." Any of the shopfitters advertising in our journal will give you all practical information. As regards a homœopathic counter, you can get what you want from any of the wholesale homœopathic chemists.

How to Work the M.P.'s.

To The Chemist and Druggist—

SIR,—The plan suggested at the meeting of the Executive Committee of the British Pharmaceutical Conference for the distribution of the pamphlet containing Dr. Attfield's two addresses to every member of Parliament is doubtless an excellent way of bringing about the long looked-for legislation, and will be sure to meet with general approval; but, in addition, I would suggest that, as the Pharmaceutical Conference is going to be the expense of this circulation, the Pharmaceutical Society should circulate a copy of the pamphlet to every chemist on the register, or at least to every local secretary, with the request that, if possible, he would have a personal interview with his representative member in Parliament, and thus obtain his opinion, and probably, in nine cases out of ten, his promise of support when a fresh Bill is brought forward. The weight thus brought to bear would be far greater than by simply sending the pamphlet and leaving it quite to chance, whether it is read or not. I believe that the Pharmaceutical Society will endeavour to bring forward a Bill which will afford every atom of protection that Parliament and the public will permit, and feel sure that the above mode of procedure will help to show those who are so constantly complaining that the Pharmaceutical Society does exert itself more than they are apt to imagine.

Blandford.

RICHARD H. GROS.

111/23. **Carbolic Acid.**—On page 463 of our last number we mention Mr. Flynn's suggestion to decolorize pink carbolic acid by adding chloride of sodium to its watery solution. Messrs. Calvert & Co. write that chloride of sodium will throw carbolic acid itself out of watery solutions and will, in consequence, materially alter the strength of such solutions.

111/66. *Nemo.*—It is impossible to remove the smell of hydrosulphide of ammonia without destroying the compound. The smell is as much a property of it as sweetness is of sugar.

111/60. **Dialysed Iron.**—*Dialyser* will find a valuable paper by Dr. Inglis Clark on the manufacture of dialysed iron on page 170 of our volume for 1880. The plan he recommends is as follows:—Mix 3 pints liquor perchlor. with 2 gallons of water, add just sufficient ammonia to impart a faint ammoniacal odour after stirring. Wash the precipitate well and squeeze as strongly as possible, then add to it in a capsule 10 oz. licor. fort. Warm slightly, with stirring, and when dissolved place in a dish 15 inches square, consisting of two frames of wood, 4 inches deep, and outside each other, and stretching the parchment tight. A number of these dialysers are placed in a wooden frame supporting the edges, to the under side of which cork is fastened. Warm water is passed over the dialysers, and in a few hours a jelly results. In the course of four or three days this redissolves, and sometimes in less than a week such a quantity is perfectly tasteless, but usually a fortnight is required. It is advisable to use cooler water towards the end of the process. The points to be attended to are these: Avoidance of excess of ammonia in precipitating the liquor; thorough washing and squeezing the precipitate; complete solution before placing on the dialyser; care lest evaporation from the dialyser dry up the contents.

It is probable that the liquor ferri dialysatus with a smell of chlorine or nitrous acid fumes was made by simply dissolving ferric hydrate in solution of ferric chloride without dialysis.

110/30. **Chemical Barometer.**—*F. M. D.*—In the formula given on page 464 of our last number, the quantities of saltpetre and sal ammoniac should be 38 grains each, not drachms as it is printed. The other quantities are correct.

115/57. *An Old Subscriber* asks how to cleanse stone bottles which have been used for petroleum. Can any reader suggest a plan?

114/67. *Subscriber.*—**Conf. Jalapa Co. St. Bartholomew's Hospital.**—Beasley's "Pocket Formulary" gives the formula as follows: Powdered jalap 3ij, cream of tartar ʒiiss, ginger ʒij, treacle ʒiiiss, dose .

Sham Chemist.

SIR,—Confirmatory of the remarks in Dr. Attfield's address, regarding unregistered persons whose shops resemble those of chemists and druggists, a friend of mine engaged in correcting addresses for the new Western Directory, says that he met with two such cases, one in Victoria Road and one in Barking Road, Essex.

In both instances they requested him to be sure and not publish their names as chemists and druggists, but call them dealers in drugs. The fact that evasions of the Pharmacy Act exist requires no comment.

200 Well Street, Hackney, E.

ROBERT OWEN FIN

116/4. **Jumbo.**—**Cheap Pomade.**—The following may answer:—

Lard	4 lbs.
White wax (true) .. .	3 oz.
Distilled water .. .	5 oz.
Oil of bergamot .. .	1 oz.
Oil of lemon .. .	$\frac{1}{2}$ oz.
Oil of cloves .. .	2 dr.
Palm oil .. .	1 oz.

M. s. a. A form for hop bitters containing podophyllin is given on page 312, of our last volume.

ZINCI OXYD. PUR.

(HARRIS'S),

In 1 lb., 2 lb., 4 lb., 7 lb., 14 lb. and 28 lb. Boxes. 1/- per lb.

Special Quotations to Large Buyers.

Please Note.—EVERY PACKAGE HAS OUR LABEL AND SEAL UPON IT.

PHILIP HARRIS & CO., MANUFACTURING WHOLESALE AND EXPORT CHEMISTS, **BIRMINGHAM.**

BOND'S CRYSTAL PALACE GOLD MEDAL MARKING INK.

(Prepared by the Daughter of the late John Bond).

No heating
required.

No heating
required.

—THIRTEEN PRIZE MEDALS FIVE GOLD.—

By Official Appointment to the QUEEN and COURT OF HOLLAND. Certificate of Merit signed H.R.H. PRINCE OF WALES.

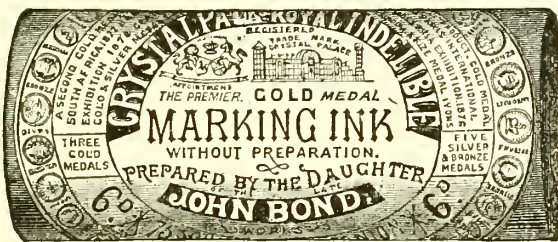
By Royal Letters Patent.

**THE "INVICTA" SCARLET
BLUE MARKING INK.**

Proprietor, J. HICKISSON, Son-
in-law of the late John Bond.

WHOLESALE PRICES.

	Gross.
6d. Wrappers	30/-
1s. " " " " " " "	60/-
6d. Pedestals	36/-
1s. " " " " " " "	72/-



Facsimile of 6d. and 1s. Blue Wrapper.

WHOLESALE PRICES

**BOND'S CRYSTAL PALACE
MARKING INK.**

	Gross.
6d. Blue Wrappers ..	30/-
1s. " " " " " " "	60/-
6d. Pedestals	36/-
1s. " " " " " " "	72/-

CAUTION TO WHOLESALE AND RETAIL VENDORS.—Costs and Damages awarded in actions tried December, 1875, and November, 1877, for selling and manufacturing Colourable Imitations. To secure the genuine article, please order of your Wholesale House "BOND'S (Daughter of the late John) CRYSTAL PALACE MARKING INK."



Examine Labels, in
consequence of complaints.

WORKS: 75 SOUTHGATE ROAD, LONDON.

RETURN IMITATIONS.

Shippers and others please send for Illustrated Price List. Free Carriage on parcels of £5 and upwards.

BY ROYAL ORDER THE "INVICTA" SCARLET MARKING INK
LETTERS PATENT UNCHANGEABLE IN ITS BEAUTIFUL COLOUR BY REPEATED WASHING AND BOILING

Hunyadi János

**THE RICHEST
NATURAL
APERIENT WATER."**

Baron Liebig in "Lancet."

**"Certain and pain-
less, soft and mild."**

Prof. Von GARTNER,
Stuttgart.

**"OF GREAT
USE IN HABITUAL
CONSTIPATION."**

Medical Times and Gazette.

Hunyadi János

Hunyadi János

Hunyadi János

As a Laxative and against Obstinate Constipation. "Has remarkable success in all diseases for which aperient waters are used."

Prof. BAMBERGER, University of Vienna.

Against Hemorrhoids and Portal and Hepatic Congestions. "Prompt, certain, and without inconvenience"

Prof. VON BUNN, Munich

In Bilious Attacks and Sick Headaches. "Favours the secretion and excretion of bile, and removes congestive and inflammatory conditions of the liver."

Prof. ALON MARTIN, University of Munich.

During Pregnancy; for Nursery Use; and in many Female Disorders. "I prefer this to any and every other."

Dr. MARION SIMS, N.Y.

Against Evil Consequences of Indiscretion in Diet. "Has invariably good and prompt success."

Prof. VIRCHOW, Berlin.

"In the Uric Acid Diathesis and Prevention of Urinary Calculi, much more energetic than Friedrich-hall, Carlsbad, or Marienbad; can be given in much smaller doses, and is less unpleasant to the taste."

New York Medical Journal, 1880, Dr. F. WEIR.

The name
of the

APOLLINARIS COMPANY, LIMITED,

on every Label secures
genuineness.

Of all Chemists, 1s. 6d. and 2s. per Bottle. Ordinary Dose, a Wineglassful.

This most efficacious taken in the morning fasting, warmed to a temperature not below 60°, or when an equal quantity of hot water is added to it.

MELBOURNE,

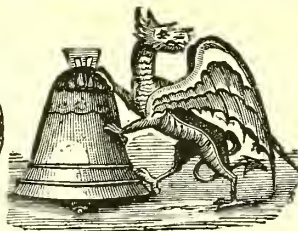


1880.

ADELAIDE,

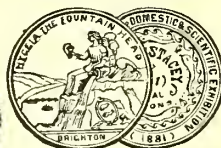


1881.



TRADE MARK.

BRIGHTON,



1881.

NEW ZEALAND,



1882.

CORBYN, STACEY & CO.

Wholesale & Export DRUGGISTS, MANUFACTURING, PHARMACEUTICAL, AND ANALYTICAL CHEMISTS.

PRICES CURRENT FORWARDED ON APPLICATION.

Special Quotations for Large Quantities or Original Packages.

Laboratories, Drug Mills, Warehouses, and Head Office: 300 High Holborn.

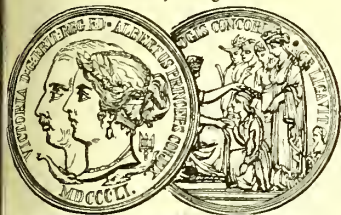
Branches: 86 New Bond Street; 7 Poultry; 153 Leadenhall Street.

NEW ACCOUNTS should be accompanied with Draft or London Reference.

300 HIGH HOLBORN, LONDON.

Quinine, Pharmaceutical & other Chemicals

London, 1851.



Established

London, 1862.

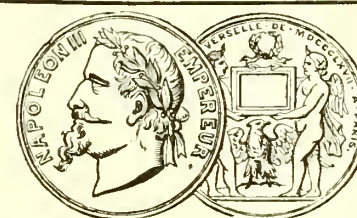


Howards & Sons



Paris, 1855.

1798



Paris, 1867.

City Mills, Stratford, Essex.

JAMES WOOLLEY, SONS & CO.,

DRUG MILLERS AND
MANUFACTURING PHARMACEUTICAL CHEMISTS.

The "Extra Pale" Cod Liver Oil.

Unchanged at 32° F.

Pure White Beeswax, in bars.

Free from rancidity. M.P. 150° F.

Pure Yellow Beeswax, in bars.

M.P. 149° F.

Pure Crushed Linseed,

Ground from Screened Seed.

Dalmatian Insect Powder,

from Unopened Flowers, free from adulterated colouring matter.

Preparations Levigated by Steam Power.

Spirit of Nitrous Ether,

Guaranteed of official strength.

Aromatic Spirit of Ammonia,

Distilled from Volcanic Ammonia.

Assayed Opium, Cinchona, & Scammony

Their Powders and Preparations.

Soluble Essences of Ginger, Lemon, &c.,

For flavouring Aërated Waters.

Tasteless Coated Pills.

Soluble in cold water.

Medicated Suppositories, Bougies, &c.

CHEMICAL AND PHARMACEUTICAL APPARATUS, CHEMICAL PRODUCTS.

DRUGS AND CHEMICALS GRIND FOR THE TRADE.

Warehouse & Offices—2 & 4 Swan Court, Market Street; Laboratory & Drug Mills—Knowsley St., Cheetham,

MANCHESTER.

Prices Current and Catalogues on demand.

Special quotations forwarded to large buyers.

PRICE LIST OF FLUID EXTRACTS (EVANS).

Our exhibit of FLUID Extracts at the recent Exhibition of the British Medical Association, held in Liverpool, having attracted considerable attention, we now manufacture and keep the following in stock, being those at present in demand.

To ensure the full therapeutic efficacy of these Extracts, special care is exercised in the selection of the menstruum most fitted to each individual case, so that each preparation fully represents the whole medicinal properties of the drug from which it is prepared.

Many of these Extracts are official in the United States Pharmacopœia of 1882, in which case they have been prepared strictly in accordance with that authority, but in all cases the strength of the finished preparation has been made to represent weight for measure so that each minim represents one grain of the drug. We have, however, stated the strength after each article, mentioning the part of the plant from which it is prepared.

		W. Qt.			V. Qt.
Extractum Arnice Fluidum per lb.	14/-	12 6 lb.	Extractum Guaranæ Fluidum per lb.	10/-	9 1/2
<i>One fluid ounce is equivalent to one ounce of the Root.</i>			<i>One fluid ounce is equivalent to one ounce of Guaranæ.</i>		
Extractum Belladonnæ Fluidum per lb.	8/-	7 - "	Extractum Hamamelis Fluidum (Witch Hazel) lb.	8/-	7 1/2
<i>One fluid ounce is equivalent to one ounce of the Root.</i>			<i>One fluid ounce is equivalent to one ounce of the Bark.</i>		
Extractum Boldo Fluidum per lb.	16/-	14 6 "	Extractum Hæmatoxyli Fluidum per lb.	3 6	3 1/2
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of Hæmatoxylinum.</i>		
Extractum Buchu Fluidum per lb.	7 -	6 - "	Extractum Hydrastis Fluidum (Golden Seal) per lb.	10/-	9 -
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Cascara Sagrada Fluidum per lb	8 -	7 - "	Extractum Hyoscyami Fluidum per lb.	16/-	5 -
(Rhamnus Purshiana)			<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>		
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			Extractum Ipecacuanhæ Fluidum ... per lb	16 -	5 -
Extractum Castaneæ Fluidum (Chestnut)... per lb	9 -	8 - "	<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			Extractum Jaborandi Fluidum per lb.	7 -	6 -
Extractum Chimaphilæ Fluidum (Pipsissewa) per lb.	9 -	8 - "	<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>		
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			Extractum Juglandis Fluidum (Butternut) per lb	9 -	8 1/2
Extractum Cimicifugæ Fluidum (Black Cohosh) lb.	9 -	8 - "	<i>One fluid ounce is equivalent to one ounce of the ROOT</i>		
<i>One fluid ounce is equivalent to one ounce of the Root.</i>			<i>Bark.</i>		
Extractum Cinchonæ Flav. Fluidum per lb.	10 6	9 6 "	Extractum Kramerie Fluidum per lb	7 -	5 -
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Cinchonæ Rub. Fluidum per lb.	10 6	9 6 "	Extractum Leptandree Fluidum (Culver's Root) lb	9 -	8 -
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Coca Fluidum (Coca Erythroxylon) Per lb	9 -	8 - "	Extractum Lupuli Fluidum per lb.	11 -	10 -
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of Hops.</i>		
Extractum Couvalleriæ Majalis Fluidum per lb.	14 -	12 6 "	Extractum Marrubii Fluidum Per lb	3 -	16 -
(Lily of the Valley)			<i>One fluid ounce is equivalent to one ounce of the Herb.</i>		
<i>One fluid ounce is equivalent to one ounce of the whole plant.</i>			Extractum Matricæ Fluidum per lb	10 -	10 -
Extractum Coto Fluidum per lb	12 -	11 - "	<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>		
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			Extractum Quassie Fluidum per lb	3 6	3 1/2
Extractum Cubebe Fluidum per lb.	10 -	9 - "	<i>One fluid ounce is equivalent to one ounce of Quassia.</i>		
<i>One fluid ounce is equivalent to one ounce of Cubebs.</i>			Extractum Quebracho Blanco Fluidum ... per lb.	14 -	14 -
Extractum Cuspariæ Fluidum per lb	8 -	7 - "	(Aspidospermum Quebracho)		
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			<i>One fluid ounce is equivalent to one ounce of the Bark.</i>		
Extractum Cypripedii Fluidum (Ladies' Slipper) lb.	9 -	8 - "	Extractum Rhamni Frangulæ Fluidum ... per lb.	2 8	4 -
<i>One fluid ounce is equivalent to one ounce of the Root.</i>			(Black Alder)		
Extractum Damianæ Fluidum per lb	14 -	12 6 "	<i>One fluid ounce is equivalent to one ounce of the Bark.</i>		
(Turnera Aphrodisiaca)			Extractum Rhei Fluidum per lb.	9 -	-
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Digitalis Fluidum per lb.	8 -	7 - "	Extractum Senegæ Fluidum per lb	6 6	-
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Dulcamaræ Fluidum per lb.	6 -	5 - "	Extractum Senæ Fluidum per lb	6 -	6 -
<i>One fluid ounce is equivalent to one ounce of Dulcamara.</i>			<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>		
Extractum Eucalypti Fluidum per lb	8 -	7 - "	Extractum Spigeliæ Fluidum per lb	9 -	-
<i>One fluid ounce is equivalent to one ounce of the Leaves.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Euonymi Fluidum (Wahoo Bark) per lb	9 -	8 - "	Extractum Stillingiæ Sylvaticæ Fluidum per lb.	9 -	-
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			(Queen's Root)		
Extractum Fuci Vesiculosi Fluidum per lb.	3 6	3 - "	<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
(Bladder Wrack)			Extractum Taraxaci Fluidum per lb	3 -	8 -
<i>One fluid ounce is equivalent to one ounce of W'rack.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Gelsemii Fluidum (Yellow Jasmine)	14 -	12 6 "	Extractum Valerianæ Fluidum per lb	6 -	6 -
<i>One fluid ounce is equivalent to one ounce of the Root.</i>			<i>One fluid ounce is equivalent to one ounce of the Root.</i>		
Extractum Gossypii Fluidum per lb.	14 -	12 5 "	Extractum Viburni Prunifol Fluidum per lb	8 -	-
(Cotton-root Bark)			(Black Haw)		
<i>One fluid ounce is equivalent to one ounce of the Bark.</i>			<i>One fluid ounce is equivalent to one ounce of the Bark.</i>		
Extractum Grindeliæ Robustæ Fluidum ... per lb.	8 -	7 - "	Extractum Viucæ Majoris Fluidum per lb	6 -	6 -
(Wild Sunflower)			(Greater Periwinkle)		
<i>One fluid ounce is equivalent to one ounce of the Herb.</i>			<i>One fluid ounce is equivalent to one ounce of the Herb.</i>		

SPECIAL QUOTATIONS TO LARGE BUYERS.
SOLE MANUFACTURERS:

EVANS, LESCHER & WEBB,
LONDON.



EVANS, SONS & CO.
LIVERPOOL.

MANCHESTER OFFICE AND SHOWROOM—1 and 2 Exchange Buildings, Cromford Court, Market Street
BIRMINGHAM OFFICE AND SHOWROOM—Barwick Street, off Livery Street.
H. SUGDEN EVANS & CO., Montreal, Canada; and Boston, U.S.A

RICHARDS' **AMERICAN MEDICINE** **DEPOT.**

*ALL MEDICINES OF REPUTE IN AMERICA
OBTAINED AS REQUIRED.*

**SPECIAL WHOLESALE AGENT FOR THE FOLLOWING
PROPRIETORS:**

THE PHARMACEUTICAL ASSOCIATION,
New York.

HALL & RUCKEL, New York.

P. H. DRAKE & CO., New York.

BRENT GOOD & CO., New York.

HIMROD MANUFACTURING CO., New York.

THE HOLMAN CO., New York.

CLARENCE M. ROOF, New York.

B. T. HOOGLAND, New York.

PERRY DAVIS & SON, Providence, R.I.

L. EECKELAERS, Brussels.

CH. DELACRE, Brussels.

JOHN MORGAN RICHARDS,

2 & 93 GREAT RUSSELL STREET, LONDON.

CABLE ADDRESS—"ADRIATIC LONDON."

EXTRACTUM PANCREATIS

A PURE, DRY PRODUCT FROM THE PANCREATIC GLAND.

In Powder—Price 5s. per Ounce.

Rich in **Diastase**; and in **Trypsin**, the ferment of the **Pancreas** which converts albumen into **PEPTONE**.

Five grains of *Extractum Pancreatis* added to a pint of milk at 100° F. will convert all the casein into *peptone* in one hour; the milk cannot then be curdled even by strong nitric acid, or by rennet.

The only apparent change is the development of a slightly bitter taste.

In many cases it is sufficient to only *partially* digest the milk—for 20 to 30 minutes or so—then titrate or no bitter taste is developed.

When *Extractum Pancreatis* is added to *tepid* milk—without soda—it first produces a **soft, flocculent curd**, which it then gradually digests.

A few grains administered to **infants** in a little sweetened *tepid* milk often relieves the various symptoms of indigestion caused by the formation of the *hard curd* of **casein**; in other cases it is necessary to *peptonise* the milk **before feeding**.

Five grains of *Extractum Pancreatis* added to a pint of *thick*, well-boiled **starch gruel** will dissolve the starch and render it liquid, like water, in a few minutes, at a temperature which can be borne by the mouth.

Five grains of this *Extract of Pancreas* will produce more effect upon **starch** or **milk** than **ONE OUNCE** of *saccharated Pancreatine* or *mixture of Pancreatine*, under the same condition.

Peptonised and *partially peptonised* milk has been extensively used with most excellent results in the milk-indigestion of bottle-fed infants, as a food for the sick in Typhoid Fever, Gastric Catarrh, &c., and is given for nourishment after severe operations by eminent gynecologists and surgeons in New York.

We make a Speciality of Preparations of the **PURE DIGESTIVE FERMENTS** both of the **STOMACH** and the **PANCREAS**.

PEPSINE IN SCALES

Price 5s. per Ounce.

Our *Pepsine in Scales* is the first pepsine ever produced guaranteed free from Hydrochloric Acid, Salt, Starch, Milk-sugar, Artificial Peptone, or any added substance. Although the digestive strength as claimed by us appeared phenomenal, this has been verified by actual test by some of the best pharmacists and physicians in the country, and cannot be refuted.

The introduction of our *Pepsine in Scales* caused a revolution in the manufacture and use of pepsine. Physicians will no longer accept as pepsine milk-sugar containing a small per cent. or trace of the digestive ferment, nor will pharmacists pay absurd prices for these triturations of pepsine, which they can now themselves prepare.

One grain digests **six hundred grains** of albumen in **four** hours, in the standard acid albumen mixture of the U.S. Pharmacopoeia. The most active and permanent preparation of pepsine in the world.

ORIGINATORS AND MAKERS:

FAIRCHILD BROS. & FOSTER,

Manufacturing Chemists, Druggists, and Importers,

60 FULTON ST., NEW YORK, U.S.A.

PAMPHLET SENT TO ANY ADDRESS UPON APPLICATION.

PARKE, DAVIS & CO.,

MANUFACTURING CHEMISTS,

DETROIT, MICH., AND NEW YORK CITY, U.S.A.

We beg to call attention to the following preparations which we have lately introduced in the United Kingdom.

FLUID EXTRACTS:—

BARBEE Brier Root (*Smilax Sarsaparilla*).
 BEESFOOT (*Polymnia Uvedalia*).
 BERRY AQUIFOLIUM (*Oregon Grape Root*).
 BLACK HAW (*Viburnum Prunifolium*).
 BURDOCK (*Aretium Lappa, Lappa Minor*).
 CASCARA AMARGA (*Pieramnia*).
 CASCARA SAGRADA (*Rhamnus Purshiana*).
 CHENOPODIUM (*Myrtus Chekan*).
 COCA LEAVES (*Erythroxylon Coca*).
 COCA LALLARIA MAJALIS, Herb (Lily of the Valley).
 " " Flowers " "
 " " Root " "
 COCA SILK (*Stigmata Maidis*).
 COCA BARK (*Para-Coto*).
 DANA (*Turnera Aphrodisiaca*).
 EUCALYPTUS GLOBULUS (*Fever-tree*).
 GELSEMIUM (*Gelsemium Sempervirens*).
 GOLDEN SEAL, U. S. P. (*Hydrastis Canadensis*).
 GOLDEN SEAL, AQUEOUS (for local application).
 GROSSELIA ROBUSTA.

GRINDELIA SQUARROSA.
 JABORANDI (*Pilocarpus Pennatifolius*).
 JAMAICA DOGWOOD (*Piscidia Erythrina*).
 KAVA KAVA (*Piper Methysticum*).
 MANACA (*Franseria Uniflora*).
 PRICKLY ASH BARK (*Xanthoxylum Fraxineum seu Carolinianum*).
 QUEBRACHIO (*Aspidosperma Quebracho*).
 RHUS AROMATICA.
 SIERRA SALVIA (*Artemisia Frigida*).
 SMILAX COMPOUND, McDade's, composed of Bamboo Brier Root, Burdock, Poke Root, Stillingia, and Prickly Ash.
 STILLINGIA SYLVATICA (*Queen's Root, Queen's Delight*).
 USTILAGO MAIDIS (*Corn Ergot*).
 WAIHOO (*Euonymus Atropurpureus*).
 WITCH HAZEL (*Hamamelis Virginica*).
 YERBA REUMA (*Frankenia Grandifolia*).
 YERBA SANTA (*Eriodictyon Californicum*).
 Etc., etc.

CONCENTRATIONS, SPECIALITIES, SUGAR AND GELATINE COATED PILLS.

CASCARA CORDIAL,

An Elixir of the Bark of *Rhamnus Purshiana*, a recognised remedy of great value in the treatment of Chronic Constipation.

Messrs. Parke, Davis & Co., Detroit, Mich., will be happy to furnish the most complete information respecting any of their preparations to any Chemist applying to them direct. Orders executed from their Wholesale Depot:

BURGOYNE, BURBIDGES, CYRIAX & FARRIES,
 16 COLEMAN STREET, LONDON, E.C.

PARKE, DAVIS & CO.'S

Select Pressed Herbs, Barks, Flowers, Roots, &c.

Herbs, Leaves, and Flowers are put up in one ounce packages.

Roots and Barks only in one pound packages.

Each ounce package bears the common and Latin names, with synonyms in English, German, and French, and the properties and dose. With poisons the antidote is given.

We invite attention to the following points of superiority in this line of our manufactures:

Every package is full weight.

Attractive style and convenient shape.

The quality is absolutely the best which is produced.

The prices do not exceed those of inferior goods.

Entire freedom from admixture and removal of undesirable portions of the plant.

Our direct connections enable us to have especial care bestowed upon the collection and preservation of drugs intended for our use.

P., D. & Co.'s Pressed Herbs, Roots, &c., may be obtained from

Messrs. POTTER & CLARKE, 6 & 7 Duke Street, Brushfield Street, London, E.

HIMROD'S CURE

FOR

ASTHMA,

HAY FEVER, CROUP, CATARRH, DIPHTHERIA & COLIC

The attention of sufferers from Spasmodic Asthma is directed to the following
Extracts from some of the Press Memoirs of the late lamented

EARL OF BEACONSFIELD.

"An account states that the early hours of the morning had always been the most trying to the patient, and after one o'clock the difficulty of relieving the throat and chest became so great that recourse was had to an expedient which Lord Beaconsfield had before declared had given him the *greatest relief*, and a small quantity of Himrod's Powder was burned in a saucer in such a position that the fumes were inhaled by the sufferer."—*The "Daily News," London, Wednesday, April 20th, 1881.*

"The east winds, which have again set in, no doubt hastened the end. It seems that for the asthmatic affection his lordship derived the greatest comfort from Himrod's Powder, which was recommended to him by Sir Philip Rose. He last inhaled it at one o'clock this morning, and seemed to derive comfort from it. Nothing could be more dignified than the manner in which the noble patient bore his sufferings, and nothing more composed and tranquil than his end."—*The "Globe," London, Tuesday, April 19th, 1881.*

It is important to observe that Himrod's Cure was employed under the highest medical sanction, for the "Globe" (above quoted) further states—

"... Indeed, latterly, since his illness assumed a critical turn he had submitted himself to the guidance of his physicians and friends, eating when he was more or less inclined to do so, and obeying the medical directions. From the very first he behaved wonderfully patient and in good spirits, although conscious he could never recover, and"

"From the very first he has been wonderfully patient, and in good spirits, although conscious he could never recover, while awaiting his death with marked fortitude. It is understood that the only real relief he had during the paroxysms of his illness was from an American remedy (Himrod's Powder), which was freely administered during his illness, being the last medicine given him."—*The "Echo," Tuesday, April 19th, 1881.*

CAN BE OBTAINED FROM THE FOLLOWING FIRMS—

LONDON ... **F. NEWBERRY & SONS.**

„ ... **BARCLAY & SONS.**

„ ... **J. M. RICHARDS.**

„ ... **T. LYNCH & CO.**

LIVERPOOL ... **J. HALLAWELL & CO.**

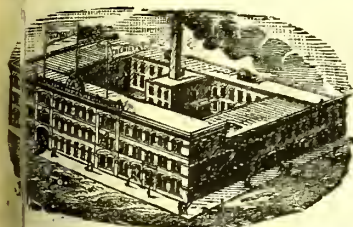
BELFAST ... **CLARK & McMULLEN.**

NELSON, NEW ZEALAND ... **R. HADFIELD.**

SYDNEY, NEW SOUTH WALES ... **WASHINGTON H. SO L.**

OR FROM

HIMROD MANUFACTURING CO., SOLE PROPRIETORS.
NEW YORK, U.S.A.

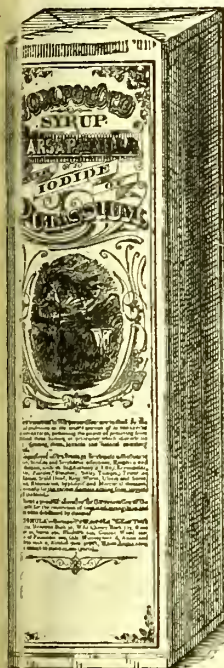


FREDERICK STEARNS & CO., Manufacturing Pharmacists, DETROIT, MICHIGAN, U.S.A. Exporters of Medicinal Products. Established 28 Years.

POPULAR NON-SECRET MEDICINES.

Under the title of Popular Non-Secret Medicines, we introduced, in 1876, a line of articles avowedly made to supplant patented and secret medicines. The form and sizes of like popular patented goods; to print the working formula on each package; to make them in large quantities, at a saving in cost of material and labour; to sell them to the RETAIL trade of the United States; to print each buyer's name and address on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted medicine out of his sales; to enable him to make the profits himself, which otherwise go into the pockets of patent-medicine manufacturers; to quack and secret nostrums by medicines of known composition and value.

Illustrated Priced Catalogue and Order Blanks furnished on application of any retail druggist in good rating. Each Customer is protected from competition in his immediate neighbourhood.



This cut represents the 12-oz. size of Compound Syrup of Sarsaparilla with Iodide of Potassium.

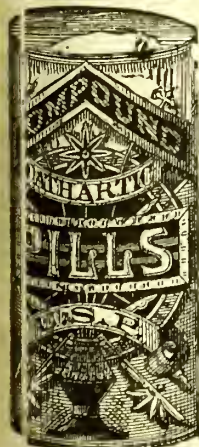
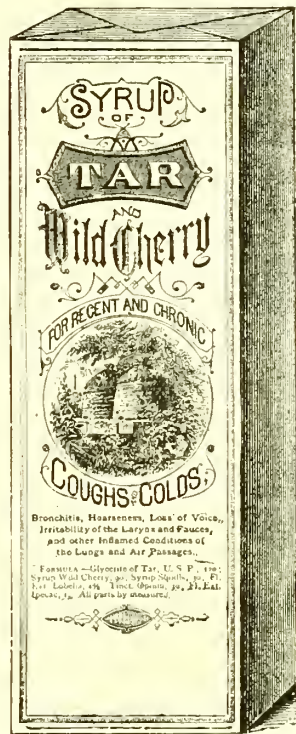
The medicines combined in this preparation have long been recognised by the medical profession as the most certain of alteratives and depuratives. It is useful in chronic affections of the skin, scrofula, syphilis, and all diseases arising from impurities of the blood. It contains Sarsaparilla, Senna, Licorice, Iodide of Potassium, Sassafras, Anise and Oil of Wintergreen. Formula printed on label (or not, as buyers wish). Price from one-half to two-thirds less than Patented Nostrums. The general make-up is elegant and far surpasses any hitherto put before the public.

This cut shows the popular non-secret Syrup of Tar and Wild Cherry.

For recent or chronic Coughs and Colds, Bronchitis, Hoarseness, Loss of Voice, Irritability of the Larynx and Fauces, and other Inflamed Conditions of the Lungs and Air Passages.

PROPERTIES.—It is agreeable in taste and appearance, and Tar is diuretic and promotes secretion in the bronchial and laryngeal passages; Wild Cherry is an elegant and agreeable tonic and sedative; Squill, one of the best of expectorants; Ipecac is diaphoretic and expectorant; Opium, sedative.

STYLE AND SIZE.—Put up in three sizes, to retail for One, Two, and Four Shillings; label and buyer's address on bottle; cork left long; handsome engraved wrapper printed on heavy salmon-tinted enamelled paper; a two-page circular enclosed.



This cut represents a turned-wood box, containing 25 Sugar (or gelatine) Coated Cathartic Pills

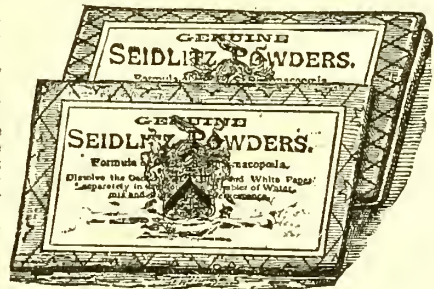
(formula, U. S. Ph.); engraved wrapper, with customers' address (not ours); each one quarter, one half, or one gross of boxes packed in Decorated Canisters. Price of the goods from one-half to two-thirds less than those of Patent or Quack Pills. Any formula, any title, and any address may be had in this form.

We put up but one quality, and that the full weight of the Pharmacopoeia. We make our own Tin and Slide Paper Boxes. Our BLUE papers are died in the rag, and will not fade or stain. The ACIUS are wrapped in foil. Wrappers are of elegant, variously-tinted enamelled papers, engraved designs, and with buyer's address.

Directions and Uses in English, French, German, and Spanish.

ACCURATE WEIGHT.—We have for some time discarded the method of measuring the Seidlitz mixture and acid in putting up Seidlitz Powders, and in place of that we weigh every single powder, and would like to have our customers test this fact, and then weigh several of the machine-weighed powders, or those put up with measuring cups, and report the result. Ours are exactly correct; made by any other way they cannot be. These are to be had in Boxes of 12, 10, 8, and 6 Powders; also in Decorated Foil Envelopes of 1, 2, or 3

Genuine Seidlitz Powders.



Single Powders in Decorated Foil, Boxes of 50 or 100 only.

publish monthly an 8 page illustrated paper, "THE NEW IDEA." Send for it. Contains articles of interest to every retail druggist—the organ of the house—and is devoted to New Remedies, New Preparations, and Novelties in Pharmacy.

EVERYTHING MEANS.—We furnish Counter Circulars, Almanacs, Memorandum Books, Cook Books, Canary Bird Books (new), "Our Dogs" (new) and other desirable means for counter advertising. These are furnished at cost to customers of our Non-Secret Remedies, AND ADVERTISE THE GOODS EXCLUSIVELY.

W CATALOGUE, No. 80, issued April 1880, contains 72 pages, closely printed, of our manufactures (exclusive of the popular Non-Secret Preparations Fluid Extracts, Sugar-Coated Pills, Elixirs, Powdered Drugs, Effervescent Granules, &c., &c. A book of reference. To Customers free.

W CATALOGUE, No. 82.—Illustrated Descriptive Price List of the popular Non-Secret Medicines, Toilet and Domestic Articles. It contains 80 pp., and nearly 150 engravings. Free on application.

Printed Card or Address should be sent with every Order. Send for Order Blanks.

FREDERICK STEARNS & CO., Manufacturing Pharmacists, DETROIT, MICH.

LICORICE

Our Licorice is made in the most careful and scientific manner from sound Italian and Spanish root, handsome in appearance, of finest flavour, beautiful fracture, and entirely free from grime. The sizes are 4, 6, 8, 12, 14, and 16 sticks to the lb. (all sizes same price per lb.), put up in 5-lb. wooden boxes, weight guaranteed. Samples and Prices upon application. CORRESPONDENCE WITH JOBBING HOUSES SOLICITED.

We have received the following Awards:

Franklin Institute, Philadelphia, Exhibition of 1874, "for purity"; Centennial Exhibition, Philadelphia, 1876, "purity and general excellence of manufacture"; Paris Exposition, 1878, "for general excellence."

MELLOR & RITTENHOUSE

MANUFACTURERS OF LICORICE,

218 & 220 NORTH 22nd STREET, PHILADELPHIA, U.S.A.



PLANTEN'S CAPSULES.

ESTABLISHED 1836.

H. PLANTEN & SON,

224 WILLIAM STREET, NEW YORK.

SOFT AND HARD. (9 SIZES.) ALL KINDS FILLED.

EMPTY (8 Sizes) For taking medicine free of taste, smell, injury to teeth, mouth, or throat.

RECTAL, 3 Sizes.

HORSE, 5 Sizes.

VAGINAL, 4 Sizes.

DOG WORM.

CAPSULES FOR MECHANICAL PURPOSES.

Special Recipes Capsuled.

New kinds constantly added.

Sold by all Druggists. SAMPLES FREE.



FOUNDED BY J. MILHAU, 1813.

J. MILHAU'S SON

Wholesale and Dispensing

CHEMIST AND DRUGGIST

Importer and Exporter of Drugs, Medicines, and Specialties,

183 Broadway, New York

Agencies and Correspondence solicited.

1830

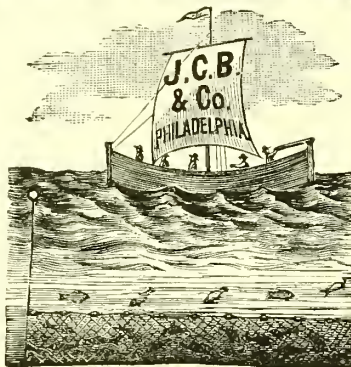
BAKER'S EMULSION OF COD LIVER OIL.

A POTENT and PALATABLE REMEDY for Consumption and all wasting diseases is offered in

BAKER'S EMULSION

of finest Norwegian Cod Liver Oil, combined in an elegant form with Hypophosphites of Lime and Soda.

No preparation has ever met such a universal recognition by the



Medical fraternity, and its use is becoming constantly more extensive.

The superiority of

BAKER'S EMULSION

is acknowledged wherever known, and medical men would do well to avail themselves of the opportunity to test its merits, which can be done by procuring a bottle from the London Agents:

BARCLAY & SONS, 95 FARRINGTON STREET

who are also prepared to furnish samples to Physicians free on application.

CORRESPONDENCE SOLICITED.

JOHN C. BAKER & CO., Philadelphia, U.S.A.

BARCLAY & SONS are also Agents in Great Britain for

BARCLAY'S PILE SUPPOSITORIES

an astringent and balsam combined in most convenient form for application directly to the seat of the disease, affording most immediate relief, and performing the most astonishing cures. Boxes containing 14 Suppositories sent by mail on receipt of 4/6 to Chemists or Physicians, 3/6.

JNO. C. BAKER & CO., Proprietors, Philadelphia.

ALLAIRE, WOODWARD & CO.

PEORIA,
ILLINOIS, U.S.A.,

Desire to call the attention of
Chemists to their line of

SUPERIOR

Choice Pressed Herbs,

&c., &c.

*Style of Package is shown in
the accompanying Cuts.*

IMPORTANT NOTICE.

Very little attention is generally paid by druggists to this class of goods, so that frequently (in fact it has become the rule) presses never or seldom give their names on the packages, and, as a result, a large proportion of these goods in the market are short weight, old or inferior stock, and of no value to name, or otherwise objectionable.

You wish to avoid all these serious objections, and at the same time secure a much handsomer package, having on it all the common names, also the German and French names, the medicinal properties, formulas for the infusion and dose of the same, and also, in the case of Poisons, the antidote, you can easily do it by specifying our brand (A., W. & Co.) when ordering of your dealer. In case inferior goods are substituted, we shall be pleased to receive your orders direct.

We believe it is only necessary to call the attention of the intelligent and thinking portion of the trade to these facts to secure a hearty support in our effort to supply superior goods at ordinary prices.

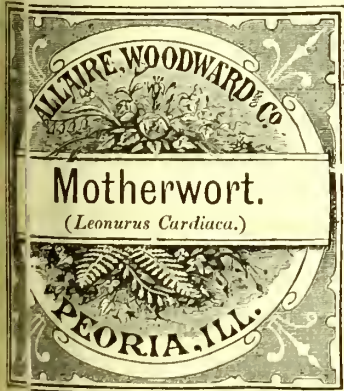
Our position as large consumers of this class of goods in the manufacture of Fluid and Solid Extracts and Sugar-coated Pills enables us to secure the best quality, gathered expressly for us, at the very lowest possible price, so that to secure better goods you do not have to pay more money, but simply pay a little care in ordering.

Our name is on every package. Accept no other as ours.

POISONS are put up in YELLOW PAPER, and in this class are all goods which, though not strictly poisons, should be dispensed with caution, such as Tansy, Savin, Pennyroyal, &c. Roots and barks under this class have a cautionary label of yellow paper pasted on the end. All other ounce packages are put in fine blue paper. The adoption of these styles by us, we trust, will reduce very materially the danger for mistakes in dispensing.

CAUTION.—During the past year nearly every presser of botanic goods in this country has adopted our style of putting them up, under the supposition that it is the wrapper which sells the goods. We are convinced, however, that it is the superior quality of the goods furnished which has given us the largest trade by far now done by any one house, and we trust that buyers will not be deceived by these external imitations.

PROPERTIES.
Emmenagogue, nervine, antispasmodic, tonic, diaphoretic, and carminative. Useful in hysteria, amenorrhoea, &c. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.



Motherwort.
(*Leonurus Cardiacus*.)

COMMON NAMES.
Motherwort, Cardiacus.
Herzgesannkraut.
Agripaume.

ALLAIRE, WOODWARD & CO.,

MANUFACTURERS OF

Fluid & Solid Extracts,

GELATINE AND SUGAR-
COATED PILLS,

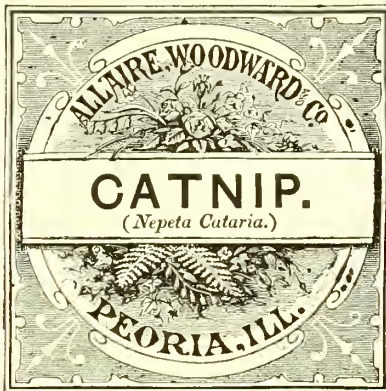
Pure Ground, Powdered, & Pressed
Botanic Goods,

PEORIA, ILLINOIS, U.S.A.

These Goods may be obtained from

BASTIN, MCGREGOR & Co., Manchester, England.
A. J. WATT & Co., Sydney, N.S.W., Australia.
W. H. H. LANE, Melbourne, Victoria, Australia.
HEMMONS, LAWS & Co., Melbourne.
A. COLE, Sydney, N.S.W.
SMITH & PARKES, Sydney, N.S.W.

COMMON NAMES.
Catnip, Catmint, Catwort, and Balmfield.
Bäuerlein.
Herbe aux Chats Catalpa.

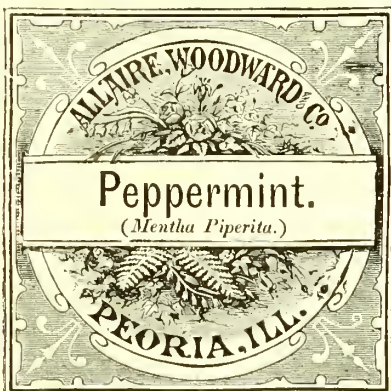


CATNIP.
(*Nepeta Cataria*.)

PROPERTIES.

Tonic, diaphoretic, and carminative. Useful in flatulence, colic in children, and as an emmenagogue in amenorrhoea and dysmenorrhoea. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

PROPERTIES.
Stimulant, antispasmodic, carminative, and stomachic. Used in colic, hysteria, and to check nausea. Infusion, 1 oz. in a pint of hot water. Do not boil. Dose, a wineglassful repeated.



Peppermint.
(*Mentha Piperita*.)

COMMON NAMES.
Peppermint.
Pfefferminze.
Menthe poivrée.

JENSEN'S CRYSTAL PEPSIN

In Artificial Crystals. Perfectly Soluble in Water without Acid.

THIS PEPSIN, now so popular with the profession, has given an impetus to the consumption of this drug. Physicians of the highest standing, who before the introduction of this active Pepsin, with good reason, entirely abandoned the use of Pepsin, are now the most eager in prescribing JENSEN'S CRYSTAL PEPSIN, whenever it is indicated.

Three grains of this PEPSIN, which, according to its authoritatively tested strength, will dissolve the hard-boiled white of six eggs, equal to the pure food of a hearty meal. Price 8s. per ounce.

EDS. MED. & SURG. REPORTER:—

I have this day tested a specimen of Dr. Jensen's so-called "Crystal Pepsin," with the following results, which will be of interest to your readers:

Experiment 1.—One quarter of a grain of Jensen's Pepsin dissolved in f. 3 iss. of water mixed with f. 5 ij. of water containing 9 drops of hydrochloric acid, and kept at a heat varying from 100° to 110° F., dissolved 125 grains of hard-boiled white of egg in two hours.

Experiment 2 was an exact copy of the first, except that solution was effected in two and a quarter hours.

Experiment 3.—One-quarter of a grain of the same Pepsin, under like conditions, dissolved 150 grains, or 600 times its weight, of coagulated albumen, in about three hours—this amount of albumen being rather more than half that usually found in an egg of average size.

Experiment 4.—One-quarter of a grain of the Pepsin similarly tested with 200 grains of boiled white of egg left a small residue (estimated to weigh 20 or 25 grains) at the end of three and a half hours, when the experiment was interrupted. It was therefore probably capable under the circumstances of dissolving at least 700 times its weight of freshly-coagulated albumen.

The solvent power of this Pepsin is thus shown to be great as that of the "Pepsinum Saccharatum" (U.S. Pharmacopoeia, 1880), and hence this method of preparing pepsin undoubtedly places within the reach of physicians a vastly improved means for aiding the stomach digestion of nitrogenous food.

JOS. G. RICHARDSON, M.D., Prof. of Hygiene in the University of Pennsylvania.

Philadelphia, May 16, 1883.

Jensen's Pepsin in Diphtheria.

Dr. Edwin Rosenthal, acting on the suggestion of Dr. L. Wolff, has used an acidulated concentrated solution of pepsin as an application to the membranes of diphtheritic patients, for which there seemed to be no other help than tracheotomy and reports that it acted like a charm, dissolving the membranes, admitting a free aeration of the blood, and placing the patient soon on the road to convalescence. The solution he used was—

℞ Jensen's Pepsin ... 3j.
Acidi hydrochloric, C. P. ... gtt. xx.
Aque q. s. ft. ... fl 3 j.

M. S. Apply copiously every hour with a throat mop.—*From the Med. Bulletin, Philadelphia.*

Dr. Jensen's Pepsin as a Solvent in Albuminous Obstruction of the Bladder.

Dr. Hollmann, [*Nederl. Weekbl.*, 18, p. 272] reports the case of an old man aged 80, suffering from retention of urine in whom the introduction of a catheter failed to produce the desired result. It was found that the bladder contained coagulated albuminoid masses mixed with blood. A few hours after the injection of about sixteen grains of Dr. Jensen's Pepsin, dissolved in water, a large amount of a dark, viscid fetid fluid readily escaped by the catheter.—*Lon. Med. Record.*

JENSEN'S BEEF PEPTONE,

In Transparent Glassy Scales.

One ounce represents one pound of beef, less fat and a small portion of earthy matter, which precipitates after the process of digestion is entirely completed, thus presenting a true and highly azotized nutrient in the most concentrated form possible. This is the first Beef Peptone ever offered to the profession in a strictly completed and unmixed state, and will stand the most severely scientific test as to perfectness. For rectal as well as oral administration it is a medicine a *new agent* by which to overcome asthenic inanition, and thus combat one of the worst features of acute and chronic diseases.

JENSEN'S BEEF PEPTONE WITH ROCK CANDY.

Also in Transparent Glassy Scales, but a trifle Larger.

Devised to overcome the long-felt difficulty in feeding sick children who object to food in any hitherto known form but never refuse candy. They will, to the gratification of all interested, feed themselves with this sweet Peptone, and for more. One ounce of this Peptone represents one-half pound of beef.

Both of these Peptones are put up in bottles holding one ounce, eight ounces, and one pound, retailed at 2s. 7d. per ounce.

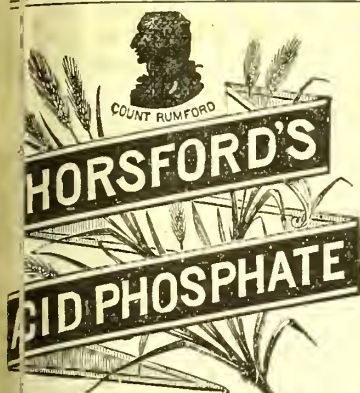
The above preparations are only manufactured and put up exclusively as specialties by

DR. CARL L. JENSEN,

865 NORTH 26th STREET, PHILADELPHIA, PA.

Exclusive Agents—GABRIEL & TROKE, Wholesale Druggists, 82 City Road, LONDON.

Sold by F. NEWBERRY & SONS, 1 King Edward Street, Newgate Street, LONDON.



(LIQUID.)

Prepared according to the directions of Professor
E. N. Horsford, of Cambridge.

**A food for an Exhausted Brain,
In Liver and Kidney Trouble,**

In Sea-sickness, Wakefulness, and Sick Headache,

In Dyspepsia, Indigestion, and Constipation,

**In Inebriety, Despondency, and Cases of
Impaired Nerve Function,**

IT HAS BECOME A NECESSITY IN A LARGE NUMBER OF HOUSEHOLDS THROUGHOUT THE WORLD,
and is universally prescribed and recommended by Physicians of all schools. It is not nauseous, but agreeable to the taste. No danger can
att its use. Its action will harmonise with such stimulants as are necessary to take.

IT MAKES A DELICIOUS DRINK WITH WATER AND SUGAR ONLY.

For reasonable. Pamphlet giving further particulars mailed free. Manufactured by the

RUMFORD CHEMICAL WORKS, PROVIDENCE, R.I., U.S.A.

PROF. HORSFORD'S BAKING PREPARATIONS

Trade of Horsford's famous Cream Tartar Substitute, an acid phosphate in powdered form, of same strength and appearance as Cream Tartar. This
substitute restores to the flour the nutritious phosphates which are removed with the bran in the process of bolting, and its use is positively
beneficial to health.

CABLE ADDRESS, "RUMFORD, PROVIDENCE."

**WHOLESALE AGENTS—Francis Newbery & Sons, 1 King Edward Street, Newgate Street; Barclay & Sons,
95 Farringdon Street, LONDON, E.C., ENGLAND.**

Physicians who have not used Horsford's Acid Phosphate, and who wish to test it, will be furnished a sample and pamphlet on application to
either of the above agents; and sample will be furnished free of charge, except the expense of packing and postage (fourpence), which a mount should
accompany the application.

**AMERICAN MEDICINAL
ROOTS, HERBS, BARKS, &c.,
FOR EXPORT.**

**PEEK & VELSOR, NEW YORK,
ESTABLISHED 1840.**

WHOLESALE BOTANIC EXPORT DRUGGISTS.

Medicinal Roots, Herbs, Barks, Seeds, Flowers,
Crude, Crushed, Ground, and Powdered. All prepared under own
supervision, and guaranteed strictly pure. Being the Oldest
Exclusive Botanic House in America, with an experience of
40 years in testing and preparing American Botanical Products,
we offer many advantages over competitors. Our reputation for serving
our friends with goods of prime quality only, and at fair prices, has been
long established. With this class of goods, **QUALITY** is of the
first importance. Nothing is cheap if old or impure. We renew our
stock every season, and will guarantee satisfaction to all who favour us
with their orders. Orders should be accompanied with draft or New York
check. Quantities supplied on application.

**SPECIALTIES—Peek's Asthma Cure, Peek's Liver
Pills, Peek's Tincture Veratrum Viride, Peek's
Syrup Sarsaparilla, Peek's Cough Syrup.**

Also Roots and Barks, pressed, in one-lb. packets
and Herbs and Flowers, pressed, in 8-oz., 4-oz., and
1-oz. packets.

RECOMMENDED BY PHYSICIANS OF ALL SCHOOLS

For Dyspepsia, Mental and Physical Exhaustion, Nervous-
ness, Wakefulness, Diminished Vitality, &c.

B. KEITH & CO.,
MANUFACTURERS OF
**PURE CONCENTRATED
MEDICINES,
CONCENTRATED TINCTURES, ETC.**

We make a full line of **RESINOIDS**, such
as **PODOPHYLLIN, LEPTANDRIN, EUONY-
MIN, IRISIN, HYDRASTIN, &c., ALL PURE.**

So-called Concentrations are in the market, called by the same name as
our manufactures, that are made by triturating extracts, etc., with sugar
of milk, powdered root, etc.

WHAT ARE CONCENTRATED TINCTURES?

They are not made from the crude material, but by dissolving the
active principles in Alcohol in definite proportions, and
invariably represent a uniform amount of therapeutic power.

Send for printed matter on **CON. TINCT. AVENA SATIVA** in the
Morphia or Opium Habit, and certificates from different members of the
Medical Profession, citing cases under their charge, treated by it; also
REVISED AND ENLARGED MANUAL; also Price Lists, to

B. KEITH & CO.,
41 LIBERTY STREET, NEW YORK, U.S.A.

HENRY TROEMNER

710 Market Street, Philadelphia, U.S.A.

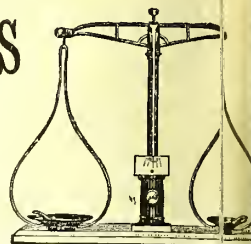
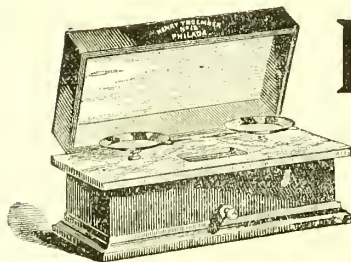
MANUFACTURER OF

Fine Scales & Weights

Druggists' Prescription Scales, Analytical and Assay Balances.

Illustrated Price List on application.

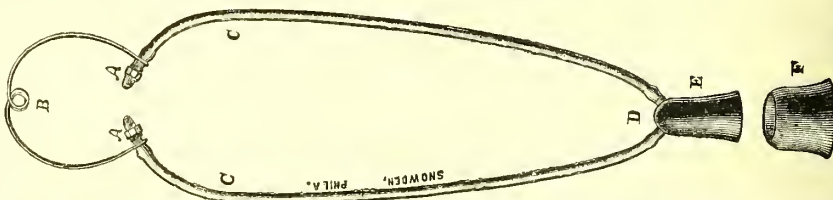
Sold by S. MAW, SON & THOMPSON, London ;
ROCKE, TOMPSITT & Co., Melbourne.



SNOWDEN'S "PERFECTED" BINAURAL STETHOSCOPE

Please note "caution," as inferior imitations have made their appearance.

CAUTION.
All genuine ones have "WM. SNOWDEN, Philadelphia," stamped on the Soft Rubber Cup or Bell (F).



This instrument is well known in the United States, Canada, Mexico, South America, England, Germany, and Belgium.

WILLIAM SNOWDEN, Manufacturer and Importer of SURGICAL INSTRUMENTS and APPLIANCES

No. 7 SOUTH ELEVENTH STREET, PHILADELPHIA.

Established 1821. The Oldest Surgical Instrument Manufactory and Importing House in the United States.

PRICE OF STETHOSCOPE,

SENT BY MAIL ON RECEIPT OF PRICE.

Snowden's "Perfected" Atomiser, No. 1, for the Throat

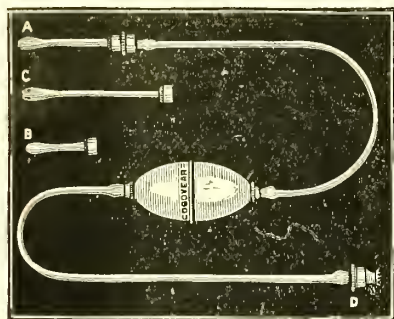
No. 2, " and Ear

No. 3, " Nose

SURGEONS' PURE IRON-DYED SILK,

as used and recommended by Professors Gross and Pancoast, and other leading surgeons. A sample card of 14 sizes sent gratis to any address.

European Orders for Silk will receive Prompt Attention if addressed to "ARTEMORBI," Bern, Switzerland.

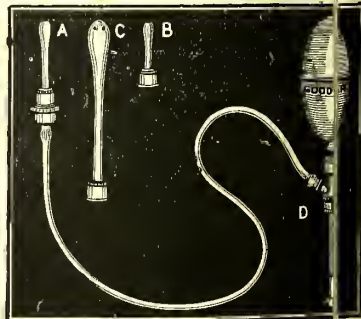


No. 5.

Its superior quality makes it the most desirable of all medium-priced Syringes.

IMPROVED No. 7.

A first-class medium, with Bulb detachable.
Polished Wood Cases.



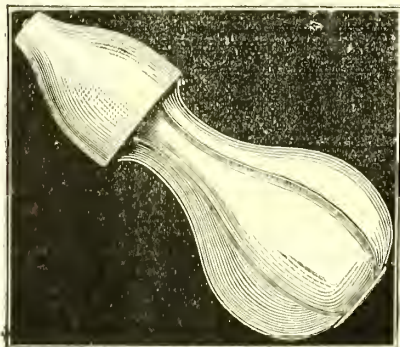
GOODYEAR RUBBER CO., New York, U.S.A.

MANUFACTURERS OF SOFT RUBBER AND VULCANITE

SYRINGES AND ENEMAS

LAWRENCE BROS., 48 Farringdon Street, E.C.

SOLE AGENTS FOR GREAT BRITAIN.

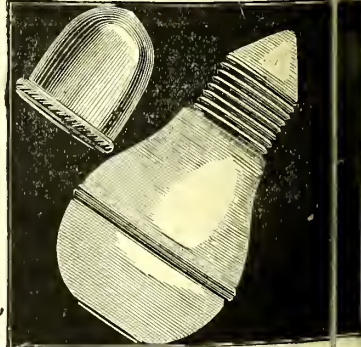


"LADIES'."

Is the simplest and most perfect Vaginal Syringe in the market.

"P.P.P."

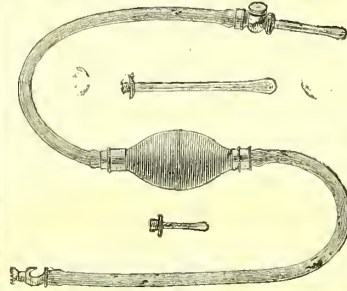
A Soft Rubber Urethral Syringe; very useful, as the Solution can be carried safely in the pocket.





DAVIDSON SYRINGES

Nos. 1 and 2,
**PURE BLOCK TIN
PIPES.**



No. 4,
**HARD RUBBER
PIPES.**

UNIVERSALLY ACKNOWLEDGED TO BE THE MOST PERFECT ENEMAS 'MADE
A PERFECT INSTRUMENT that can always be relied upon is the **CHEAPEST.**

With the DAVIDSON Syringes, absolute perfection in the purity of stock, and skill of construction are the objects aimed for, so that by their great durability they are much cheaper to use than any others.

WE COMPETE ON QUALITY ONLY.

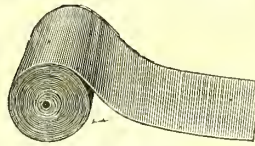
The trade never have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, wretched Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

We have recently added a patent improvement to the Syringe in making the metal on the suction end of the tubing in the shape of a hook, so that the instrument can be hung up after use, and all the fluid allowed to drain out, which adds greatly to the durability of the Instrument.

These goods are exported to England, Germany, France, Holland, South America, Mexico, East Indies, &c.

GREAT IMPROVEMENT IN RUBBER BANDAGES.

DAVIDSON'S
60 FEET



DAVIDSON RUBBER CO.

BANDAGES
LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made **60 feet long** in four widths (1½, 2, 2½, and 3 inches), so that **any length or width** desired can be cut off, and it **relieves the Druggists from the necessity of carrying in stock a line of Bandages of various lengths.**

Many objections are found with Bandages that are made with tapes on the end, as the tapes, being non-elastic, bind the limb so rigidly as to stop or impede the circulation.

With **Davidson Bandages** these objections are entirely removed, as they are secured in place by using **disposable safety pins**, so that **no part** of the limb is bound by **non-elastic material.**

We give the following from the celebrated London Medical Journal, "THE LANCET," of March 25, 1882.

"**DAVIDSON RUBBER CO. ELASTIC BANDAGE.**—The Bandage seen by us is a very good article, pure, of excellent uniform, and with excellent smoothly-cut edges. It is prepared in lengths of 60 feet, from which any length can be cut. With it are sold small 'safety' pins for fastening the last turn, as it is objected to the tape usually fastened on the end. **Davidson's Bandages** that it forms an *in-elastic* constrictor of the part, and in this objection there is some force. It is probably sufficient to say that this Bandage fully maintains the high character for rubber goods already won by this firm."

CATALOGUES FURNISHED ON APPLICATION TO

DAVIDSON RUBBER CO.

Manufacturers of Druggist, Surgical, and Fine Rubber Goods,
30 FRANKLIN STREET, BOSTON, MASS., U.S.A.

E. FOUGERA & CO.,
 30 NORTH WILLIAM STREET,
 NEW YORK, U.S.A.,
 Importers of and Agents for the Principal
 FOREIGN MEDICINAL PREPARATIONS
 AND SPECIALTIES.
 AGENCIES AND CORRESPONDENCE SOLICITED.

EISNER & MENDELSON,
 IMPORTERS AND EXPORTERS OF
FOREIGN & DOMESTIC HERBS,
 ROOTS, DRUGS,
CHEMICALS & PATENT MEDICINES.
 Consignments and Agencies solicited. Highest references furnished.
 Sole Agents for the U.S. for Johann Hoff's Malt Extract.
 " " " H. Trommsdorff's Chemicals.
 818 & 320 RACE STREET, PHILADELPHIA, PA.

S. S.
V. B.

SHERMAN'S SHERRY WINE BITTERS.
THE GREAT BLOOD MEDICINE.

Only recently introduced from America, and now being thoroughly advertised, is already commanding an extensive sale in the Metropolis, where it is kept in stock by over 600 Chemists, who pronounce it the best paying Patent Medicine that has been placed in the market for years.

Show-cards, Counter Bills, &c., on application.
 Agents wanted in every town not represented, with whom arrangements will be made for advertising in local papers.

KEYMER CHEMICAL CO., 283 Clapham Road, LONDON.

Wholesale Agents:—Messrs. MAW, SON & THOMPSON and F. NEWBERRY & SONS.

MORRISON, PLUMMER & CO.,
 Importers and Wholesale Druggists,
 52 & 54 LAKE STREET,
 CHICAGO, ILLS., U.S.A.,
 PROPRIETORS OF THE
DIPSOMANIA CURE

FOR THE
ALCOHOL AND OPIUM HABITS.

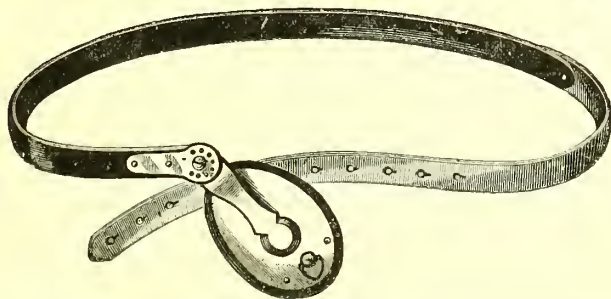
Correspondence regarding CONSIGNMENTS OF
 FOREIGN PRODUCTS solicited.

Reference by permission—FIRST NATIONAL BANK, CHICAGO.

G. de CAYCEDO & CO.,
 COMMISSION MERCHANTS, AND EXPORTERS OF
 COFFEE, HIDES, AND INDIARUBBER,
 Are desirous of entering in business with English Manufacturers, Merchants, and Bankers. References in London, New York, and Paris, post free on application.
 Address—**G. de CAYCEDO & CO.,**
 BOGOTA, U.S. OF COLOMBIA, S.A.

INDEX TO ADVERTISEMENTS,
 SEE PAGES 41-42.

THE
CELLULOID TRUSS.



A FINE STEEL SPRING covered with the BEAUTIFUL CELLULOID, PADS of same material.
 LIGHT. COOL, AND COMFORTABLE.

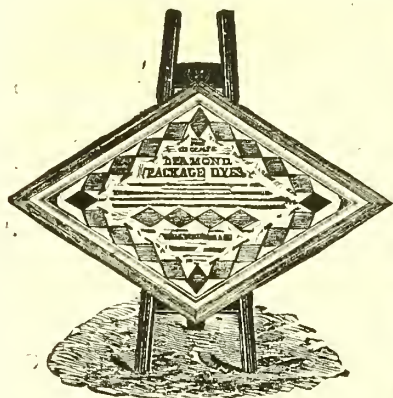
Will not rust or wear out. Well suited to warm climates.

ADOPTED BY U.S. SURGEON-GENERAL'S OFFICE.

MADE IN A VARIETY OF PATTERNS.

Acknowledged to be the best Truss now in use.

E.C. PENFIELD & CO., Sole Manufacturers,
PHILADELPHIA, U.S.A.



This beautiful Sample Card, showing the different colours of the Dyes, given with each order.

A GREAT AMERICAN SUCCESS!

24,000 Gross Sold in Six Months

THE DIAMOND DYES!

FOR DOMESTIC & FANCY DYEING

BRILLIANT. DURABLE. SIMPLE. ECONOMICAL

For Silk, Wool, Cotton, Linen, Jute, Feathers, Hair, Paper, Basket Work, Easter Eggs

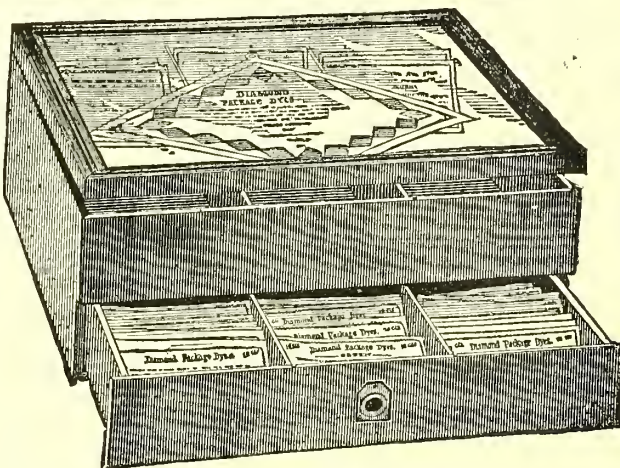
All kinds of fancy work, and every species of fabric or fibre.

Price per Package, 6d.

Per Gross, 41s. net

LIST OF COLOURS:

Yellow	Scarlet
Orange	Green
Light Blue	Brown
Bismarck	Dark Brown
Dark Blue	Navy Blue
Dark Green	Seal Brown
Cardinal Red	Old Gold
Olive Green	Dark Wine
Eosine (Pink)	Terra Cotta
Purple	Slate
Violet	Drab.



This Fine Black Walnut Counter Case given with the first two-gross order.

LIST OF COLOURS:

Crushed Strawberry	
Plum	
Maroon	Blue for Cotton
Crimson	Yellow
Black	Scarlet
Garnet	Cardinal
Magenta	

THE DIAMOND PAINTS:

Gold Paint	Silver Paint
Bronze Paint	
Artists Black	

What we give the Trade with an Order for Two Gross

A beautifully finished Black Walnut Counter Case with Drawer, giving room for a full assortment of the Dyes. *See cut above.*

A large number of handsome Sample Cards, showing 27 colours, for distribution.

A supply of the prettiest Fancy Advertising Books ever issued, giving full instructions for use of the Dyes.

The best Sample Cards and Show Cards ever got out for dye colours.

A beautiful framed Sample Card with easel and *See cut at top.*

A large Sample Book showing the colours made by the Dyes on Woollens.

A handsome Sample Book showing the colours made on Cottons.

Samples showing the colours of the Inks made from several Dyes.

Samples showing the Diamond Paints.

Our Goods may be obtained from S. Maw, Son & Thompson; Lynch & Co.; Bourne, Johnson & Latimer; F. Newbery; Barclay & Sons; W. Edwards & Son; Burgoyne, Burbidges, Cyriax & Farries; Baiss Brothers & Co., London; W. J. Forster; W. Ham & Sons; Evans, Sons & Co., Liverpool; Goodall, Backhouse & Co., Leeds; Raimes & Co., York; Raimes & Co., Edinburgh; W. & R. Hatrick & Co., Glasgow; Clark & McMullen, Belfast; Ireland; Boileau & Boyd, Dublin; and from the Wholesale Druggists and Druggists' Sundriesmen throughout the World, or from the Manufacturers,

WELLS & RICHARDSON CO..

125 to 135 College Street, Burlington, Vermont, U.S.A., and 223 McGill Street Montreal

AND AT 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

AGENT FOR AUSTRALIA AND NEW ZEALAND—MR. W. H. H. LANE, SYDNEY, N.S.W.

HOW DIAMOND DYES ORIGINATED.

THE DIAMOND DYES were originated by scientific experts who determined to place before the people, in practical shape for their use, the magnificent dye stuffs recently discovered. Their greatly superior quality has only been made possible by recent important chemical discoveries, made by leading scientists, both European and American. Two-thirds of the colours are made from dyes that were unknown two or three years ago.

In the largest factories, and for the finest goods, these new chemical dyes are rapidly superseding all the old dye stuffs, while for family use they are incomparably superior, being so much more simple, brilliant, and economical.

In durability they are unexcelled by any known Dyes.

The phenomenal success of the **DIAMOND DYES** in America, Canada, and Australia has induced the proprietors to introduce them in Great Britain.

These **DYES** must not be confounded with other articles purporting to be for the same uses. The Dyes heretofore offered in the English markets are made of materials altogether inferior, and they possess but a fraction of the colouring power of the Diamond Dyes, and entirely lack their brilliancy, beauty of colour, durability and fastness. In simplicity of use, and ample instructions for all purposes, the **DIAMOND DYES** are without a rival.

Dresses, Coats, Cloaks, Scarfs, Hoods, Yarn, Stockings, Carpet Rags, Ribbons, Feathers, or any fabric or fancy article can be easily and surely coloured to any shade wanted. Each dye is complete in itself, thereby saving all extra expense and trouble of buying other articles to set the colour. All the colours are so simple in their method of use that even a child can be successful with them.

THE DIAMOND DYES, FOR MAKING INK.

In a package of Diamond Dyes a pint of the very best ink can be made by simply dissolving in hot water. They are better than the Inks sold in small bottles and cost less than one-fourth as much. Scholars, Book-keepers, Merchants, Families, and all Writers will find them valuable for Writing, Copying, Ruling, Marking Goods, Checking, &c., &c.,

BLACK, BLUE, VIOLET,
GREEN, RED, ORANGE.

For directions given for making Writing Ink, Copying Ink, Shag Ink, and Copygraph Ink.

For Colouring Easter Eggs, Feathers, Grasses, Mosses, Everlasting Flowers, &c., &c., the **DIAMOND DYES** are the best in the world.

We call particular attention to the following page, and to the Extracts from letters printed there. The letters were received by us from Wholesale Druggists in all parts of the United States, and from Canada and Nova Scotia. They prove all we claim for **DIAMOND DYES**, and show how vastly superior they are to all the Dyes heretofore on the market.

Our Goods may be obtained from S. Maw, Son & Thompson; Lynch & Co.; Bourne, Johnson & Latimer; F. Newbery & Sons; Baily & Sons; W. Edwards & Son; Burgoyne, Burbidges, Cyriax & Farries; Baiss Brothers & Co., London; W. B. Ford-ham & Sons; Evans, Sons & Co., Liverpool; Goodall, Backhouse & Co., Leeds; Raimes & Co., York; Raimes & Co., Edinburgh; W. & R. Hatrick & Co., Glasgow; Clark & McMullen, Belfast, Ireland; Boileau & Boyd, Dublin; and from all Wholesale Druggists and Druggists' Sundriesmen throughout the World, or from the Manufacturers,



ONLY SIXPENCE A PACKAGE.

DIAMOND GOLD PAINT.

Equal in quality and quantity to the 1s. 6d. packages of other makers.

For Gilding Fancy Baskets, Frames, and every variety of Wood Work; Metallic Ornaments, Crosses, Emblems, Mottoes, &c.; Furniture and Household Ornaments; Repairing Gold Frames, and all other Gilded Work.

There is scarcely a household ornament that is not greatly improved by a little tasteful gilding, and many fashionable decorations are more than doubled in value by it.

There is no kind of ornamental work more fascinating to ladies than this, and none more easily executed.

DIAMOND SILVER PAINT.

This can be employed to decorate all articles on which Gold is used, and in some cases is more appropriate—or the two are often used together.

DIAMOND BRONZE PAINT.

This preparation may be used to decorate all articles on which Bronze produces the most appropriate effect. A coating of Diamond Bronze Paint will cause a well-made plaster figure to resemble a costly example in solid Bronze.

Chandeliers, Gas Fixtures, Lamps, and Ornaments, may be made fully equal to new, and at an insignificant cost. It is easily applied, and dries in a few moments.

DIAMOND ARTIST'S BLACK.

For Ebonizing Picture Frames, Cabinet Work, &c., &c. It gives very handsome effects in contrast with the Gold and Silver Paints

WELLS & RICHARDSON CO.,

12 to 135 College Street, Burlington, Vermont, U.S.A., and 223 McGill Street, Montreal;

AND AT 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

AGENT FOR AUSTRALIA AND NEW ZEALAND—MR. W. H. H. LANE, SYDNEY, N.S.W. [See opposite page.]

QUILLAIA.

A PRODUCT of South America, recently introduced into the United States, approved by the American Institute; cleanses fabrics in the most astonishing manner; white, clean, fragrant.

NO MORE VILE BENZINE.

METALLIC BOXES, ONE SHILLING.

WHOLESALE BY

BARCLAY & SON,
95 FARRINGDON STREET.

And may be obtained from all Wholesale Patent Medicine Houses.

REQUA & WETMORE,

130 FULTON STREET, NEW YORK, U.S.A.,

MANUFACTURERS OF

DRUGGIST 10-CENT SPECIALTIES.

New Goods constantly being added to our line.

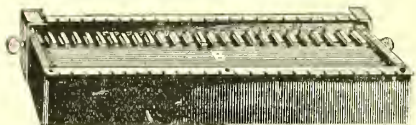
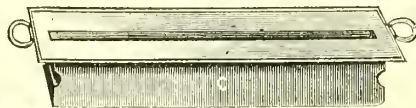
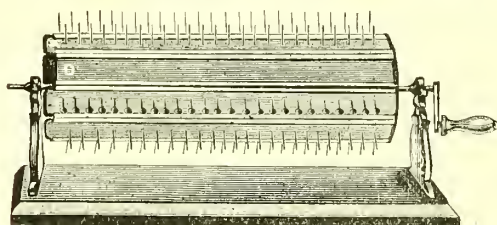
Our Illustrated Price List sent on application to all reliable Druggists.

Our Specialties to be had of all Wholesale Druggists' Sundriesmen throughout the world.

We desire an Agency in Great Britain; also Agencies and Correspondence solicited.

"THE PORCUPINE" PILL-COATING MACHINE

Patented by CHARLES C. WELLS, Saratoga Springs, New York, U.S.A.

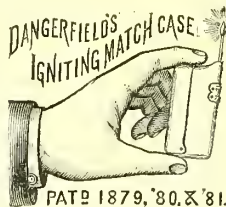


A.—Needle Bars. B.—Pick Up and Take Off.
C.—Solution Holder and Water Bath. D.—Drying Cylinder

For particulars read Advertisement in July number of THE CHEMIST AND DRUGGIST, page 101.

For Descriptive Circulars, send to

CHARLES C. WELLS,
SARATOGA SPRINGS, N.Y., U.S.A.



NO GENTLEMAN or LADY should EVER be without this CELEBRATED MATCH CASE: it is the ACME of PERFECTION. The fortunate possessor has only to push the slide quickly when a match presents ITSELF LIGHTED. Your clothes, walls, and furniture need no longer be injured or defaced. Many vexations and dangers are overcome. Price, post free, SOLID NICKEL SILVER, 2s.; SOLID ROSANZA SILVER, 3s. A liberal discount on quantities, delivered FREE to any part of the world. Address, F. S. DANGERFIELD, Sole Mfr., AUBURN, N.Y., U.S.A.

DRUGGISTS make 140 per cent. profit acting as agents for and selling REGISTER'S LINIMENT. The best in the world. Write for particulars to F. REGISTER, Prop'r, 324 Sth. 5th St., Phila., Pa., U.S.A. A reliable druggist wanted in each town.

Do not fail to send to your Wholesale House

FOR A SAMPLE DOZEN OF

FIELD'S POCKET INHALERS

SELLS EVERYWHERE.

Retail Price 1/- each. Affords relief in cases of Asthma, Bronchitis, Sore Throat, &c., when every other means has failed.



Established 1852.

INDEXICAL SOAP COMPANY, M

MANUFACTURERS OF

SILVER, PUMICE, SHAVING, DENTAL,

AND

FINE TOILET SOAPS.

THE INDEXICAL SOAPS

Are prepared from the choicest materials; all are boiled soaps, with fine odours; they are durable, economical, and always mild and wholesome.

LARGE OVAL SOAPS.

Honey, Glycerine, White Glycerine, Brown Windsor, Turtle Oil, Castor Oil, Glycerine, Almond Meal, Pounce, Zahater, Sunflower, Rice, our, Baby, Palm Oil, Farina, Pure Almond, Bay Leaf, Musk Windsor, Tar, Sand, Pun ice, &c.

GIANT SOAPS.

Honey, Glycerine, Pink Bath, Dec Bath, Oatmeal, Elder Flower. The Giants are half-pounds of the finest quality boiled and permeated pure soap, and the cheapest toilet soaps to be obtained anywhere.

INDEXICAL SILVER SOAP.

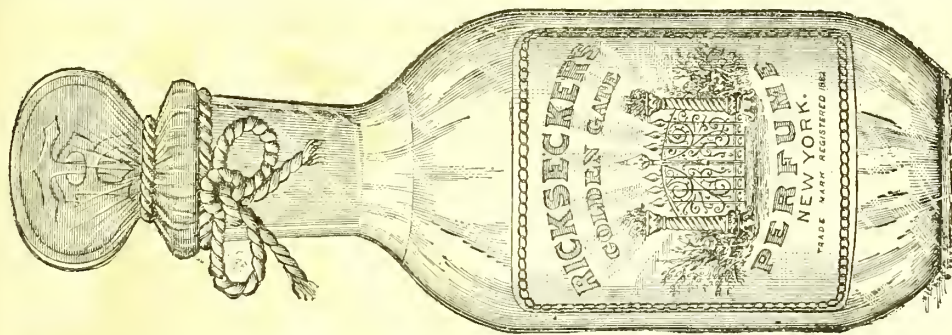
Made expressly for cleaning and polishing Silver and Plated Ware, Gold and Plated Jewellery, Pearls and Precious Stones, Gold Chains, &c. and for cleaning Window Glass, Mirrors, Marble, Tin, &c. It is much more convenient and effective than plate powders, and may be used even by inexperienced help with perfect safety, as it contains nothing that will injure the finest plate or jewellery, or even the most delicate skin. It is far superior to any other soap for cleaning fine House Paint, Statues, &c. Made only by

Robinson Bros & Co.

WHOLESALE AGENTS FOR EUROPE.

CROWDEN & GARROD,

Falcon House, Southwark Bridge Road, LONDON, E.



Certainly the Newest,
the most Stylish and the
Finest Combination of
costly Exotics. Of rare
Permanency and most
excellent sale. The best value;
a liberal two ounces;
Gold only in this new
bottle with trial vial
to each free in neat
couplet boxes. A bit
of Gold Leaf in each
bottle.

32s. Dozen.

London Agency—LYNCH & CO., 192 Aldersgate St.

AMERICAN TRUSSES.

Under Patronage of the United States Government.

ESTABLISHED 1850.

Awarded Two Premiums at Centennial Exhibition, Philadelphia, 1876.



Improved Patent "CHAMPION" TRUSS is the most practical Truss made, and the most popular with dealers generally who have fitted and sold them.

MANUFACTURED FOR

U. S. ARMY, NAVY,

AND

PENSION DEPARTMENTS.

ALSO

U. S. MARINE HOSPITAL

SERVICE.

THE PHILADELPHIA TRUSS CO.,

Inventors and Sole Manufacturers of the

IMPROVED PATENT CHAMPION "TRUSS"

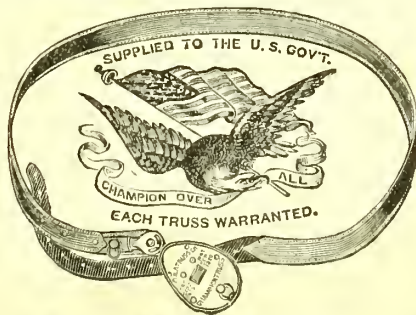
(Patented September 21, 1875, and September 21, 1880)

Manufacturers of the Adjustable Abdominal Supporter (the best in use), Spring and Elastic Trusses, Abdominal Supporters, Elastic Stockings, Belts, Shoulder Braces, and Suspensory Bandages.

Office & Factory: 610 Locust Street, PHILADELPHIA, Pa., U.S.A.

Depots in Canada: LYMAN, SONS & CO., Montreal; LYMAN BROTHERS & CO., Toronto, Ontario.

Depot in Great Britain: F. SCHUTZE & CO, 14 South Street, Finsbury, London, E.C.



Genuine bear our Firm Name, Dates of Patents, and our Trade Mark, "Champion," on plate of each Truss.

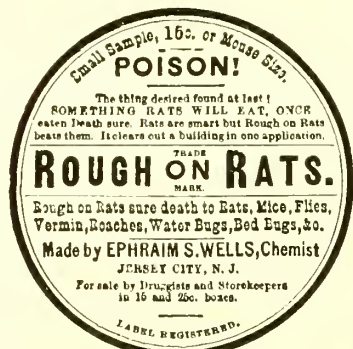
Our line of genuine Hard Rubber Trusses, &c., is the most complete in the trade and our prices the lowest.

With the largest factory and facilities in America, if not in the world, exclusively for our full line of goods, we respectfully and confidently solicit orders and correspondence from all quarters of the globe.

Cleats out Rats, Mice,
Roaches, Flies, Ants, Mosquitoes,



Bed-Bugs, Insects, Skunk, Weasel,

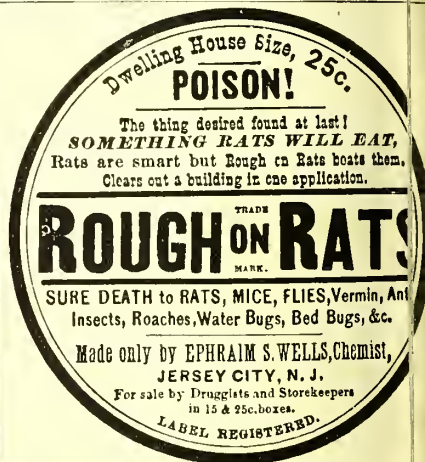


7½d.; 4s. 3d. doz.

LOOK OUT
For Imitations.

SEND FOR
Advertising Matter—
your Name on.

BUY OF
Your Wholesale
Druggist.



1s.; 6s. 5d. doz.

No loss by breakage,
leakage, or evaporation.

Will keep a thousand
years in any climate.

No Grease to soil the
drawers or other goods.

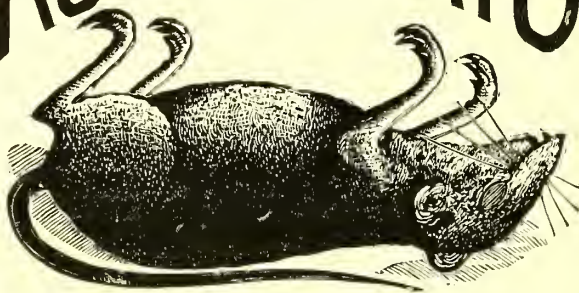
Used for Insects, Bugs,
&c., as well as for Rats
and Mice.

Always does the work.

Lowest price of its
kind.

Pays better than any
other.

ADVANTAGES OF
ROUGH ON RATS



CAREFUL
DRUGGISTS

Who do not sell arsenic
and strychnine indis-
criminately, and yet do
not wish to incur the dis-
pleasure of Patrons by
absolute refusal, can offer

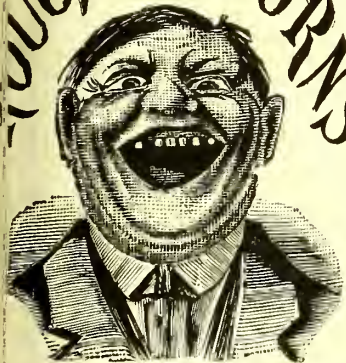
7½d. boxes of
"ROUGH ON RATS"
as a compromise sub-
stitute.

MAY BE OBTAINED FROM THE PROPRIETOR,

E. S. WELLS, Jersey City, New Jersey, U.S.A.;

And all Wholesale Druggists and Drug Sundrymen throughout Great Britain.

WELLS'
ROUGH ON CORNS




ROUGH ON CORNS
TRADE MARK

NO BREAKAGE !
Each bottle packed in
a Turned Wood Box.

7¹/₂d. size, 4s. 3d. doz.
1s. „ 6s. 5d. „

E. S. WELLS,
Jersey City, N.J.,
U.S.A.

WELLS'
ROUGH ON CORNS



ROUGH ON CORNS
TRADE MARK

Largely Advertised, same as "Rough on Rats."
PAYS 100 PER CENT.
Send for Advertising Matter. Buy of your Jobber.

REMEMBER ONE THING !

WELLS'
MAY APPLE
LIVER
PILLS,



10 & 25¢

BILIOUSNESS, LIVER COMPLAINT,
DYSPEPSIA AND CONSTIPATION.

The Original and Genuine are made pure only by
IRAIM S. WELLS, Chemist,
22 Summit Ave., Jersey City, N. J., U. S. A.
PRICE 25 CTS.

THE GOODS I OFFER YOU
PAY A BETTER PROFIT
THAN ANY OTHER
ADVERTISED
REMEDIES.
150 PER CENT.
ON THESE PILLS,
And Extensively Advertised.

7¹/₂d. size, 4s. doz.
1s. „ 5s. „

SEND FOR
ADVERTISING
MATTER.

Palatable and Profitable.
SWEET AND NICE TO TAKE.
EFFECTIVE, HARMLESS.
For Children or Adults.

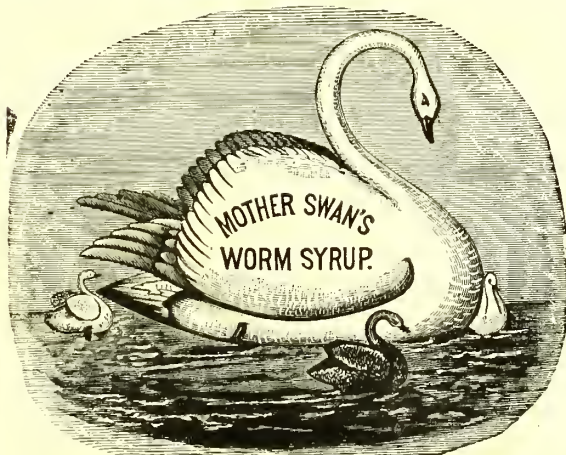
1s. size, 6s. dozen.

FOR FEVERISHNESS, RESTLESSNESS,
CONSTIPATION, WORMS.

Send for Advertising Matter.

E. S. WELLS,
JERSEY CITY, N.J., U.S.A.

MOTHER SWAN'S



WORM SYRUP.

135,896 Barrels of this Brand of

PETROLEUM was

imported into London for

the Year ending 30th

June last.

MANUFACTURED
SPECIALLY FOR THE
ENGLISH MARKET BY

LOMBARD AYRES & CO.,
NEW YORK.

SUPPLIED WHOLESALE BY

CASSELL, SMITH & CO.

80 FENCHURCH STREET,
LONDON,

*And by the principal Wholesale
Dealers throughout
the Kingdom.*



SNOWFLAKE

WATER WHITE HIGH TEST

During the past year the importations
of this high-class Oil have more
than doubled those of any
other Brands of Water
White Petroleum
altogether.



FOREIGN SPECIALITIES AND MEDICINES.

REVISED PRICE LIST.

ROBERTS & CO.,FOREIGN AND ENGLISH CHEMISTS, WHOLESALE, IMPORT, AND EXPORT AGENTS FOR
FOREIGN MEDICINES AND PATENTS,

76 NEW BOND STREET, LONDON.

Messrs. Roberts & Co. beg to inform the Trade that they are Agents for all the principal French and Foreign Specialities in Medicines, a large supply of which they have always on hand, and can supply on very favourable terms. They are in communication with their Paris House, and can offer exceptional facilities for procuring New Medicines, &c., &c., in very little delay.

The following is a list of a few that they name *au hazard*, and that have a large sale:—

Per doz.	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail
4/6 Colol de Menthe Ricques .44/	4/6 Capsules Matico .33/	2/3 Guyot's Goudron .18/	7/0 Rabuteau's Elixir Ferrug. .65/				
2/9 Ditto ditto .24/	4/6 " Raquin .30/	11/ Laville's Gout Tincture .90/	2/9 " Sirop .27/				
2/9 Aubergier's Syrup .27/	4/6 " Mathey Caylus .25/	11/ " Pills .90/	4/0 Racahout .20, 6				
1/9 " Pâte .16/	4/6 Chassaing's Wine .38/6	2/3 Papier Fayard .13/6	4/6 Reynal's Bougies .42/				
4/6 Bay Rum .64/	2/9 " Pills .24/6	1 1/2 Ditto .7/	2/9 Ricord's Injection .24/				
2/9 Ditto .27/	4/6 Clin's Bromide Cam. Dragées 45/	4/ Papier Fruneau .27/	4/6 " Capsules .38/				
2/0 Elloc's Charcoal .14/	3/0 Eau Botot .38/	2/3 Ditto .15/	8/0 " Syrup .72/; 2/9; 26/				
1/9 " Lozenges .13/	3/0 Ditto .24/	1/9 Pâte Aubergier .14 6	1/6 Star Paper .12/				
4/6 Lancard's Pills .30/	2/6 Espic's Cigarettes .14/	2/0 " de Berthé .16/	2/9 Vallet's Pills .22/				
2/9 Ditto .18/	5/6 Elixir de Coca .48/	2/9 " de Coca .23/	1/9 " Ditto .14 6				
4/6 Ron's Injection .27/	2/9 Flon's Syrup .23/	1/9 " de Georgé .13/	4/6 Veloutine (White, Pnk, Yel.) 39/				
4/6 Regnaud's Wine .35/	2/0 Gayetty's Paper .16/	1 1/2 Ditto .8 6	3/6 " Ditto ditto 30/				
4/6 Lilly's Vinegar .30/	2/3 Granules Arsen. Acid .15/	1/9 " de Nafé .13/	3/0 Viehot's Trochisques .32/				
1/8 " Ditto .15/	2/3 " Iron .15/	1/9 " Regnaud .13/	4/6 Valentine's Meat Juice .38/				
4/6 Indé's (Lait Antéphilique) 36/	2/8 " Soda .15/	7/0 Pierlot's Valerian .60/	4/6 Vin de Coca Mariani .44/6				
4/6 Capsules Bromide of Camph. 45/	2/9 Grimault's Syrups .24/	2/9 Rabuteau's Dragées Ferrug. 28/					

Special Quotations in large quantities.

Mr Roberts & Co. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Étranger qu'ils se mettent à la disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.

SPECIAL AGENTS FOR MARIANI'S ELIXIR, EXTRACT, PATE, PILLS, SYRUP AND WINE OF COCA, AND FOR VALENTINE'S MEAT JUICE, AND LE GRAND'S ORIZA PERFUMERY.

Established] House in Paris, ROBERTS & CO., Place Vendome, 23. [1823.

and at PORT ELIZABETH, SOUTH AFRICA.

Undertake Agencies for
PROPRIETARY ARTICLES.WHOLESALE
DRUGGISTS.**B. G. LENNON & CO.**Purchase,
on Commission,
DRUGS, CHEMICALS, &c.11 EDMUND PLACE,
ALDERSGATE STREET, LONDON, E.C.

Since the introduction of Pepsine by BOUDAULT and DR. L. CORVISART, BOUDAULT'S Preparations have been considered the most reliable.

BOUDAULT'S PEPSINE,

Under the form of PEPSINE WINE and PEPSINE POWDER.

The Paris Hospitals have used no other.



The only of the International Exhibition, Paris, 1867, awarded to BOUDAULT'S Preparations the only Medal given for Pepsine. Since that time it has taken the Medal at each of the International Exhibitions—Havre, 1868; Lyons, 1872; Vienna, 1873; Philadelphia, 1876; Paris, 1878; and Melbourne, 1880.

BOUDAU-T-BOUDAULT, 7 Avenue Victoria, PARIS. SQUIRE, 413 Oxford Street, LONDON.

CAN BE HAD OF ALL CHEMISTS.

ROCKE, TOMPSITT & CO., WHOLESALE DRUGGISTS MELBOURNE,

AND

24 BASINGHALL STREET, LONDON, E.C.

*Samples and Quotations solicited.**Agencies undertaken on the most advantageous terms.*

Wholesale Depot for Sander & Son's Pure Volatile Eucalyptus Oil (Eucalyptol), and Importers of Oil of Eucalyptus.

Wholesale Agents—Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C.

FELTON, GRIMWADE & CO., *Wholesale Druggists and Manufacturing Chemists* MELBOURNE, VICTORIA.

LONDON AGENTS:—

Messrs. GRIMWADE, RIDLEY & CO., Mildmay Chambers, 82 Bishopsgate Street.

Wholesale Agents for Oil of Eucalyptus.

KEMP THORNE, PROSSER & CO., NEW ZEALAND DRUG COMPANY, LIMITED Wholesale Druggists, MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS Head Office and Factory, DUNEDIN.

BRANCH HOUSES:

High Street, CHRISTCHURCH,
Lambton Quay, WELLINGTON,
Shortland Street, AUCKLAND,

Patent and Proprietary Medicines Agency.

NEW ZEALAND

London Agents—

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

GRAVES AICKIN,

"THE PHARMACY,"

DISPENSING PHARMACIST & DRUG IMPORTER,
AGENT FOR—

J. & E. Atkinson's Perfumery.
Pulvermacher's Galvanic Appliances, &c.

Grimault & Co., Paris.
Burroughs & Wellcome's Pharmaceutical Preparations

Import of Fine Chemicals, Best Brushware, India-rubber Goods, Surgical Instruments, Druggist's Sundries, American Herbs, Fluid Extracts,
New Remedies, &c., &c. English, French, and American Patent Medicines.

ADD SS (opposite Bank
New Zealand)—

QUEEN STREET, AUCKLAND, NEW ZEALAND.

T. RENNARD & CO.,
WHOLESALE AND DISPENSING CHEMISTS,
BOMBAY,
WE PREPARED TO ACCEPT AGENCIES FOR
New Specialties, Patent Medicines, Druggists'
Appliances, Spirits, Perfumery.
CORRESPONDENCE SOLICITED.

J. W. MASON & CO.,
15 ROYD STREET, CALCUTTA, INDIA,
MERCHANTS,
and Introducers of and Wholesale Dealers in
PATENT MEDICINES,
PERFUMERY, TOILET REQUISITES, &c.
Inventors wishing their Specialties introduced into
India should apply to the above.
REFERENCES GIVEN ON APPLICATION.

NOTICE.

Any person wishing to push a really good preparation in India,
the undersigned would be glad to give their best attention to
the same, provided they were entrusted with the Sole Agency.

BALL, HOBSON & CO.,

Chemists, Druggists, & Importers of European Commodities,
UMBALLA.

Agents—Messrs. S. FITZE & CO., London.

E. PLOMER & CO.,
CHEMISTS TO THE VICEROY OF INDIA,
SIMLA AND LAHORE.
LONDON AGENTS—
Messrs. A. DURANT & Co.,
89 GRESHAM STREET, E.C.

GENUINE THIBET MUSK.

"PHŒNIX"
BRAND,



SEASON
1881.

Grained, and
Guaranteed Pure by
SYMES & Co.,
The Viceroy's Chemists,

Lynch & Co.

SIMLA (HIMALAYA A.S.).

MUSK of the above Brand is received direct from SIMLA (in GRAIN only).

It is now put up in bottles of only one size, each containing ½ oz. avoirdupois,
PRIOZ, 25/; two bottles, 45/; four bottles, 85/; For 4 oz. (16 bottles) and upwards,
89/ per ounce.

LYNCH & CO., 192 Aldersgate St., LONDON.

DRAWN GLASS.

The best material for the filtration of Chemical and
Technical Products and for Dressing Wounds is the
Drawn Glass supplied by

L. PALMA,
GABLONZ a/N, BOHEMIA,
MANUFACTURER OF ALL KINDS OF
GLASS SYRINGES, &c.

ILLUSTRATED PRICE LISTS FREE BY POST.

"CALLICURA." THE CERTAIN CORN CURE.

REGISTERED. PRICE, 1s. 1½d.

Wherever introduced a large sale ensues, as the Cure is a fact. Recommends itself, and so ensures a continually
extending demand. "CALLICURA" is not a caustic, but merely a simple paint, a few applications of which deadens
and kills the worst corns, so that they may be painlessly removed entire in a few days. Corns of 30 years' standing have been
entirely eradicated when all other remedies have failed. The numerous Testimonials that are constantly being received testify
to the fact that a Certain Cure has at last been found.

Attractive Handbills, with Name on, enclosed to any Wholesale House for Home or Foreign Trade.

Sold Wholesale by the usual London Houses. Sole Proprietor—

J. R. FAULKNER, 33 Ladbroke Grove Road, Notting Hill, LONDON, W.



BAISS BROTHERS & CO., WHOLESALE AND EXPORT DRUGGISTS,

AND

Manufacturing Chemists and Druggists' Sundriesmen.

ESTABLISHED 1833.]

JEWRY STREET, LONDON, E.C.

[ESTABLISHED 1833.]

QUALITY GUARANTEED BY
AFFIXING OUR TRADE MARK
TO EVERY PACKAGE.

TRADE MARK



QUALITY GUARANTEED BY
AFFIXING OUR TRADE MARK
TO EVERY PACKAGE.

FOR EXPORT ONLY.

An exhaustive illustrated Export Prices Current, comprising every requirement of the Chemist and Druggist, will be published on the 1st of January, April, July, and October, and can be had by application (post free) on receipt of trade card. The attention of the trade is especially called to their preparations, including Extracts, Concentrated Decoctions, and Infusions, for which their name is well established, and are guaranteed to be prepared with the utmost care from the finest drugs, and which will keep in hot climates for any reasonable length of time.

Manufacturers of Fruit Essences, which form a ready means when mixed with Acidulated Simple Syrup, of producing an artificial fruit that has all the flavour of the freshly pressed fruit, and can thus be used with aerated water as a most refreshing drink in all hot climates.

CORRESPONDENCE IN ALL LANGUAGES.

Ethers, Alcohols, Liniments, and Tinctures shipped in bond at lowest market prices.

Patent Medicines and Proprietary Articles at special net prices. Scientific and Philosophical Instruments. Surgical Instruments.

Indents sent through Merchants should specially bear the name of BAISS BROTHERS & Co., and will be put on very best terms.

RIGAUD & DUSART,

Manufacturers of Pharmaceutical Preparations,

8 Rue Vivienne—PARIS—Rue Vivienne 8

SOLE PROPRIETORS OF

Pelletier's Capsules of Sulphate of Quinine

Prepared by Messrs. ARMET DE LISLE & CIE, successors of PELLETIER, DELONDRE & LEVAILLANT, with their Renowned "QUININE DES TROIS CACHEES."

These Capsules are very thin, transparent, and dissolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable of indefinite preservation.

SOLD IN BOTTLES OF TEN OR TWENTY CAPSULES.

DUSART'S Syrup of Lactophosphate of Lime.
" Syrup of Lactophosphate of Lime and Iron.
" Wine of Lactophosphate of Lime.
" Ferruginous Wine.

GRIMAULT'S CIGARETTES of Cannabis Indica.
" Syrup of Hypophosphite of Lime.
" GUARANA Powders, against headache.
" MATICO Capsules and Injections.

MIDY'S PEARLS OF PURE SANDAL WOOD OIL.

CHAPOTEAUT'S Elixir of Beef-Peptide.
" Liquid Beef-Peptide, or Conserved.
" Pearls of Pure Pepsine.

London Agents—WILCOX & CO.; NEWBERRY & SONS; BARCLAY & SONS.

ESTABLISHED OVER FORTY YEARS.

J. R. HARKER, STAGG & MOSS

15 Laurence Pountney Lane & Arthur St. West, London, E.C.,

WHOLESALE AND EXPORT DRUGGISTS

Manufacturing Pharmaceutical Chemists

DISTILLERS AND IMPORTERS OF ESSENTIAL OILS

MAKERS OF ALL SOLUBLE AND FRUIT ESSENCES.

Oil. Lavand. Edulc.

[SPECIAL
DISTILLATION]

This has been distilled by us for many years, and enjoys an excellent reputation. It is strongly recommended for economy in use, having an exceedingly fragrant and lasting odour. 18/- per lb.

Oil. Mentha Piperita

CAMBRIDGE
&
MITCHAM

Oil of this season is very excellent in quality, and our own selections from the product of the various stills are distinctly above the average.

Extract of Malt

Our Brand of this preparation, now rapidly coming to the front as a nutritive and dietetic, is prepared *in vacuo*, is of a light colour, and keeps well. It is prepared only from the best malted barley, and may be relied upon as containing the full proportion of *Diastase*, as well as 85 per cent. of solid nutritious food stuff.

Cod Liver Oil

The scarcity and high price of Norwegian Oil has caused more attention to be given to *Newfoundland Oil*, which we supply of very good quality, almost free from smell and taste, at a moderate price.

Tasteless Castor Oil

This is an excellent article, rapidly winning its way into favour, at a slight advance on the price of the ordinary.

Buyers are invited to apply for Samples and Quotations.

DUNCAN, FLOCKHART & CO.,

WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

CHLOROFORM

Prepared from Pure and Methylated Spirit.

Put up in all size of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached), and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

CHLORIC ETHER.

SP. AMMON. AROMAT. | SP. ETHER. NITROS. | SYR. FERRI PHOS. CO. (PARRISH)
Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

MANUFACTURERS OF THE CELEBRATED

BLUE BLACK WRITING INK & COPYING INK

SHIPPERS SUPPLIED ON LIBERAL TERMS.

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes

J. F. MACFARLAN & CO.,

EDINBURGH AND LONDON,

Manufacturers of

MORPHIA AND ITS SALTS

And all Products from Opium.

PURE CHLOROFORM

Answering all the Tests of the British Pharmacopœia.

ALSO, ANÆSTHETIC ETHER, ALOIN, BEBEERIN, CHRYSOPHANIC ACID, SALICIN

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

17 NORTH BRIDGE, EDINBURGH, and 71 COLEMAN ST., LONDON.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS

BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS,

BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to the fact that they have PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with various Formulæ from which their Special Preparations have been made, and pledge themselves to supply in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

EVANS, SONS & CO.,

56 HANOVER STREET, LIVERPOOL;

H. SUGDEN EVANS & CO.,

Montreal, Canada.



PARIS AGENCY,

20 Rue J. J. Rousseau.

EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON;

MANCHESTER OFFICE:

1 and 2 Exchange Buildings, Crompton Court,
Market Street.

BIRMINGHAM OFFICE:

Barwick Street, off Livery Street.

WHOLESALE AND EXPORT DRUGGISTS

AND

Manufacturing Pharmaceutical Chemists.

Manufacturers of Druggists' Sundries, and Dealers in Patent Medicines, and every requirement for Chemists and Druggists.

SOLE PROPRIETORS OF "SAVAR'S" SPECIALTIES.

PRICES CURRENT OF DRUGS AND CHEMICALS, AND DRUGGISTS' SUNDRIES (ILLUSTRATED), SUPPLIED ON APPLICATION ENCLOSING BUSINESS CARD.

ILLUSTRATED EXPORT LISTS

(About 200 pages each), containing Prices of Drugs, Chemicals, Pharmaceutical Preparations, Druggists' Sundries, Surgical Instruments, and Patent Medicines, &c., are sent post free to any part of the World on application (ENGLISH, in January and July; SPANISH, in April and October).

THE ABOVE LISTS OFFER UNUSUAL ADVANTAGES AS A MEDIUM FOR ADVERTISEMENTS.

Makers of Proprietary Medicines, Perfumers, &c., by advertising in same, will have their specialties brought prominently under the notice of dealers in all parts of the world. Terms for advertising (which are strictly moderate) may be obtained by applying to Messrs. EVANS, SONS & Co., 56 Hanover Street, Liverpool. All Advertisements translated into Spanish free of charge.

H. SUGDEN EVANS & CO.,
WHOLESALE DRUGGISTS,
MANUFACTURING PHARMACEUTICAL CHEMISTS,
General Commission Merchants,
MONTREAL, CANADA; & BOSTON, U.S.A.

N.B.—H. SUGDEN EVANS & Co. are prepared to accept Agencies for European Proprietary Articles, Perfumery, &c., in the Dominion of Canada and United States of America. All communications, in the first instance, to be addressed to EVANS, SONS & Co., 56 Hanover Street, Liverpool.

METHYLENE.
Discovered to be a general Anæsthetic by
Dr. RICHARDSON in 1867.
1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.
COMPOUND ANÆSTHETIC ETHER.
For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.
OZONIC ETHER.
4-oz. and 16-oz. Stopped Bottles, 3s. 6d. and 11s.
PEROXIDE of HYDROGEN.
First introduced as a Medicine by Dr. RICHARDSON.
ETHYLATE of SODIUM
(Dr. RICHARDSON'S Formula), for removing Nævi, &c. In 4-oz. and 1-oz. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. and 4s.
STYPTIC COLLOID.
For promoting the Healing of Wounds by the first intention.
In 2-oz. and 4-oz. Bottles, with brush, 3s. 6d. and 4s. 6d.; 16-oz., 12s.
CHARCOAL CAPSULES.
Containing pure Vegetable Ivory Charcoal. In Boxes, 2s. 6d. each.

GRAESSER'S
Pure CARBOLIC ACID Cryst.
EXTRA
ABSOLUTE PHENOL, AT MODERATE PRICE.
Clean, Pure Taste, Free from Tarry Flavour.
A. M. ZIMMERMAN,
LONDON.
WHOLESALE AGENTS.

DINNEFORD'S FLUID MAGNESIA.



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

Sold by all Wholesale Druggists, and by the Manufacturers,

DINNEFORD & CO.,
Pharmaceutical Chemists,
180 NEW BOND STREET, LONDON.

EVANS'S EXTRACT OF MALT
Strongly Recommended in Asthma, Bronchitis, Consumption, Atrophy, Indigestion, and in Stomach Cough
(Vide Report of Professor Atfield, Ph.D., F.C.S., Professor of Chemistry to the Phar. Soc. of Great Britain.)
Nov., 1873.—"EVANS'S EXTRACT is incomparably more valuable than any preparation of Malt hitherto offered to the public."

EVANS'S STYPTIC.
The introduction of this Preparation to the notice of the Profession every variety of bleeding arose from the desire expressed by several Physicians and many patients to obtain an efficient Styptic at a moderate price—Ruspi's celebrated Styptic being so costly.

P. C. SMYLY, M.D., &c., Surgeon to the Meath Hospital, writes:—"I find it of greatest use, in fact, in every instance was equal, if not superior, to Ruspi's." T. P. MASON, M.D., &c., Physician to Mercer's Hospital, writes:—"I find you had the goodness to forward to me, I found highly advantage in Hemorrhage of Phtisis."

Circulars of these Preparations may be had on application.
JOHN EVANS, CHEMIST TO THE QUEEN AND H.R.H. THE PRINCE OF WALES.
49 Dawson Street, Dublin, Ireland.
AGENTS U.S.A.—WYETH & BROTHER, PHILADELPHIA.

HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia, more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgia, pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerves. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, antipyretic and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, combined with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the early stages of *Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett's)

Packed in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

LONDON MEDICAL RECORD REPORT.

MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular as a profession as a very valuable and effective combination. It serves not only to improve *apepsia*, but to lessen the gastric pain and facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on."—January 15th, 1881.

C. J. HEWLETT & SON,

MANUFACTURING AND PHARMACEUTICAL CHEMISTS,

40, 41 & 42 CHARLOTTE STREET, GREAT EASTERN STREET, LONDON, E.C.4.
(LATE CREE CHURCH LANE).

ESTABLISHED 1842

BURGOYNE, BURBIDGES, CYRIAX & FARRIES,

16 COLEMAN STREET, LONDON, E.C.,

WHOLESALE & EXPORT DRUGGISTS,

MANUFACTURING PHARMACEUTICAL CHEMISTS,

IMPORTERS OF DRUGS AND DISTILLERS OF ESSENTIAL OILS.

PRIZE MEDAL, PARIS, 1861; SILVER MEDAL, PARIS, 1878.

Drugs, Chemicals, and Pharmaceutical Preparations of the finest quality, and of standard excellence.

Pre Chemicals and Alcoholic Preparations for Analytical purposes and original research.

EXTRACT OF MALT. Carefully prepared in vacuo from the very best malted grain, this elegant preparation retains all the delicate properties of the malt with the phosphates, albumenoids, and diastase unimpaired; it will keep well in any climate, is of a light colour, and warranted to give satisfaction. We guarantee it free from glucose or added sugar. As a substitute for Cod Liver Oil (which is now so dear) it has received considerable support from the medical profession.

OIL OF LEMON. This article has been one of our specialties for years, and one in which we have considerable experience and extensive dealings. We have, therefore, no hesitation in recommending our extra super quality as the best that can be obtained. Owing to a large crop the price is very low this year.

FLUID EXTRACT OF ERGOT. The formula of the British Pharmacopoeia having proved most reliable, and being admittedly incapable of improvement, we have strictly adhered to it, bestowing particular care on this important preparation; and although none but prime Spanish Ergot is used, the additional precaution is taken to have every new lot thoroughly tested before being used. Our preparation is guaranteed to be perfectly reliable, and physicians may depend upon it producing the specific effects of the drug, whenever such results are possible.

EUONYMIN. (GREEN in Colour.) Prepared from the YOUNG BARK. A powerful hepatic stimulant. Dose: Two grains.

FLUID EXTRACT OF RED BARK. This Extract is well worthy of the attention of Pharmacists, who can with confidence recommend it to the medical profession, containing as it does all the valuable alkaloids of the *Cinchona Succirubra* grown on the plantations of India, Ceylon, and Java, a bark well known to be rich in Quinine, &c., and superior, for pharmaceutical purposes, to the South American Barks.

COD LIVER OIL EMULSION. This preparation is made from the finest Norwegian Cod Liver Oil, combined with nutritious tonics on a new principle; and although containing fifty per cent. of oil, it will be found fully equal in efficiency to the undiluted oil, this result being attributable to the perfectly digestible form in which it is presented. The flavour is so delicate as to be entirely free from offensiveness, and it is easily assimilated by even those whose digestive powers are unusually weak. It will keep well in any climate, is particularly suitable for ladies and children, and when brought under the notice of the medical profession invariably receives their support. We put it up in pint and half-pint bottles and supply also in bulk.

COINVALLARIA MAJALIS (Lily of the Valley). This Drug is now being used as a substitute for Digitalis. In small doses (twenty to thirty minims) the Tincture acts as a stimulant to the heart; in large doses (four drachms) it is a tonic and sedative, lessening the frequency and increasing the energy and regularity of its contractions. Unlike Digitalis, it is perfectly harmless, even in large quantities. Dose: Half to one fluid ounce. We also have the Solid Extract in stock.

EROTINE. We devote the greatest care to the manufacture of this preparation, which is made in strict conformity with the original formula of Bonjean, and can with confidence recommend it. This preparation of Ergot of Rye has of late years been gaining the favour of the medical profession.

SOLUBLE ESSENCES FOR AERATED WATER MAKERS. These preparations as manufactured by ourselves have now been before the trade for several years, and we can with confidence assert that they have given the greatest satisfaction; we have overcome the great difficulty experienced in making a perfectly Soluble Essence without sacrificing the natural pungency, aroma, and strength of the ingredients employed; only the very finest materials are used in their manufacture, and we guarantee them to be made with pure spirit of wine and to give perfectly bright solutions when added to syrup or water.

COD LIVER OIL (New Season's). Carefully freed from all animal matter, stearine, etc.; very pale; does not deposit, and remains sweet for any length of time.

Price Lists, Samples, and Special Quotations on Application.

SOLE CONSIGNEES OF

SALICYLIC ACID and all SALICYLIC SALTS (after KOLBE'S Patent).

JOBST'S PURE QUININE, SANTONINE, &c.

KAHLBAUM'S PURE ALCOHOLIC COMPOUNDS.

PARKE DAVIS & CO'S AMERICAN PREPARATIONS.

MALTO PEPSYN.

OSIMETRIC MEDICAMENTS of PROFESSOR BURGGRÆVE.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS

BEST QUALITIES AND LOWEST MARKET PRICES.

GABRIEL & TROKE,

Wholesale and Export Druggists and Manufacturing Chemists

82 CITY ROAD, LONDON,

Offer great advantages to Colonial Buyers and others. Shippers will do well to send for Price List.

Exclusive Agents for Dr. CARL L. JENSEN'S Crystal Pepsine, Beef Peptone, and Peptone with Rock Candy.

GABRIEL & TROKE, 82 CITY ROAD, LONDON, E.C.

TYPKE & KING, MANUFACTURING CHEMISTS

WORKS—

Crown Chemical Works, Mitcham Common, SURREY.

LONDON OFFICE—

110 CANNON STREET, E.C.

SPECIALITIES

Hypophosphorous Acid and Hypophosphites of Ammonia, Baryta, Lime, Manganese, Potash, Soda.

Valerianic Acid and all Valerianates, Sulphate of Zinc (Pure Crystals), Sub-Oxide of Copper (fine red shade), Blue Verditer, Chemical Pyrotechnical, Indiarubber, and all other purposes.

Golden Sulphuret of Antimony, Medicinal and for Indiarubber.

MONTHLY PRICE LIST, SAMPLES, AND SPECIAL QUOTATIONS ON APPLICATION.

HEATHFIELD'S Liquor Opii Sedativus,

By "BATTLETT'S PROCESS,"

Guaranteed precisely as made in the laboratory, and under the superintendence of the late Richard Battley. Can be procured from the principal Patent Medicine Dealers and Wholesale Druggists, or at

12 WILSON STREET, FINSBURY.

FINE HEALTHY CHILDREN!

GELDART'S GALACTAGOGUE,

Or MILK PRODUCER,

IN BOTTLES, 2s. 9d., 4s. 6d., and 11s.

THIS preparation is the greatest boon ever invented for Mothers and Wet Nurses. Its use produces a copious flow of rich nourishing milk, which thoroughly satisfies the infant, prevents rickets, promotes easy dentition, and lays the foundation of a strong, healthy constitution. It also prevents debility in the mother whilst suckling, and is a capital remedy for acidity, flatulence, indigestion, &c. If taken during pregnancy it promotes perfect gestation, and effectively prevents decay of the teeth, so common to mothers during this period.

Commands a Ready Sale wherever introduced.
Will keep good in any climate.

Chemists supplied with Handbills through any of the Wholesale Houses.

PREPARED BY

J. GELDART,
PHARMACIST, LIVERPOOL,

Proprietor of the Celebrated PARISIAN STARCH GLAZE,
and Sole Consignee for the United Kingdom of the world-renowned BRAND'S AMERICAN BITTERS.

BENGER'S PREPARATIONS

These have received the commendation of the highest medical press, and are very largely prescribed by the leading medical men at home and abroad. They consist of

1. **LIQUOR PANCREATICUS (BENGER'S).** The preparation of Peptonised, or partially digested Food, at home. Bottles, 2/6, 4/6, and 8/6, with full directions for use.
2. **LIQUOR PEPTICUS.** A Concentrated Liquid Peptone of great activity. Dose, one to two teasp. with meals. Bottles, 3/, 5/6, and 10/6.
3. **BENGER'S PEPTONISED BEEF JELLY.** A delicately flavoured, concentrated, and solidified Beef Tea, containing much of the fibrin in a soluble condition. Tins, 2/ each, will keep in any climate.
4. **BENGER'S SELF-DIGESTIVE FOOD.** Infants and Invalids, an improvement on Liebig's Food, when mixed with warm milk, both the food and milk undergo partial digestion; it can therefore be enjoyed retained when other foods disagree. Tins, 1/6, 2/6, and 5/ each.

BENGER'S PREPARATIONS may be obtained from all the leading Wholesale Houses, or of the Manufacturers.

MOTTERSHEAD & CO

(S. PAINE AND F. B. BENGER),

PHARMACEUTICAL CHEMISTS
MANCHESTER.

COX'S TASTELESS PILLS.



BY ROYAL LETTERS PATENT,

Dated and Sealed April 13th, 1854.



Surgeons and Chemists supplied with an excellent Aperient Pill (the formula for which will be covered), covered with a thin non-metallic film, rendering each Pill perfectly tasteless, at 1s. a gross, Postage free.

Any formulæ dispensed and covered, and samples, with list of pills, from 500 different forms, which are kept in stock, will be forwarded free on application.

They were introduced to the medical profession by the present proprietors a quarter of a century ago, and many thousands of unsolicited testimonials have been received from the highest medical authorities, and are now used, and have been used for many years past, by the largest and best conducted hospitals and Dispensaries. Of course, a success like this has led to many imitations, and highly-varnished pills, made to resemble ours, have been introduced by some unscrupulous people. Many of these pills pass through the stomach unaltered, and a useful invention is thus likely to be brought into disrepute.

The most impudent assertions are made by some of these people, who combine, in one incongruous whole, the sales of druggists' sundrymen, retail druggists, soap-makers, and horse and cattle medicine vendors. To make and sell nothing but pills, and have testimonials from regular customers, residing in China, Australia, and every part of the civilised world, as well as from friends in almost every town and village in the Kingdom; and our trade, which is constantly increasing, is perhaps four or five times as large as all the rest of our copyists' put together.

The following are some of our Prices FOR CHEMISTS ONLY:—

We singularly recommend our Aperient Pills as a good general saleable Pill. These, with the Pharmacopœia Pills quoted are sent out to every part of the United Kingdom in half-pound parcels, package, postage, and carriage free on the day as the order is received; and, to avoid booking and other expenses, 1d. in the Shilling will be allowed if Stamps or P.O.O. are remitted with order.

Our Pills can also be obtained from any Wholesale Druggist. In ordering, please specify "Cox's TASTELESS PILLS."

QUOTATIONS FOR OTHER PILLS ON APPLICATION.

Pil. Aperiens et Cathartic.	Prices per Pound in Four or Five Grain Pills.		No. in Catalogue.	Pills of the British Pharmacopœia.	Prices per Pound in Four or Five Grain Pills.	
	Coated.	Uncoated.			Coated.	Uncoated.
Pil. Aper. (Cox) c. Cal.....	6/	5/	122	Pil. Asafoetidæ Co.....	6/6	5/6
" " (Cox) sine Cal....	6/	5/	66	" Cambog. Co.....	6/	5/
" Cathartic Fort. (Cox)...	6/	5/	24	" Coloc. Co.....	16/	15/
" Cochia	5/	4/	30	" " et Hyos.	13/	12/
			62	" Ferri Carb.	5/	4/
			71	" Hydrarg.	5/	4/
			92	" " Subchlor. Co. ...	6/6	5/6
			77	" Ipecac. c. Scillæ	7/	6/
			99	" Plumbi c. Opio	12/	11/
PILLS OF THE BRITISH PHARMACOPEIA.			104	" Rhei Co.	7/	6/
Pil. Aloes. Barb.	6/	5/	119	" Saponis Co.	12/	11/
" " et Asafoetidæ	5/	4/	321	" Scammon. Co.	22/	21/
" " et Ferri	5/	4/	115	" Scille Co.....	5/	4/
" " et Myrrh.	12/	11/				
" " Soc.....	6/6	5/6				

The Registrar of Trade Marks (after giving the usual public notice, prescribed by Parliament, to allow opposition) has granted us the above "Trade Mark," thus officially recognising us as the "Original Makers of Tasteless Pills," and no Pills will be sent out without this Mark on all bottles or packages.



ARTHUR H. COX & CO.,

TASTELESS PILL MANUFACTURERS,

MARTIN'S PLACE, BRIGHTON.



T. & H. SMITH & CO.,

CHEMICAL MANUFACTURERS,

OFFER

MORPHIÆ HYDROCHLOR.

In powder and crystals.

MORPHIÆ ACETAS.

MORPHIÆ TARTRAS.

Introduced by them and specially prepared
for hypodermic treatment.

CODEIA.

APOMORPHIÆ MUR.

PODOPHYLLIN.

JALAPINE.

SALICINE.

CHLOROFORM PURE.

CHLOROFORM METH.

Their brand has been for many years known to
the Wholesale Trade as absolutely pure.

POTASSII BROMID.

RESINA SCAMMONII, B.P.

GINGERINE.

CAPSICINE.

CAMPHOR MONOBROM.

ALKALOIDS, &c., &c.

EDINBURGH Address—

21 DUKE STREET.

LONDON Address—

12 WORSHIP STREET, E.C.

TWO SPECIAL FIRST AWARDS, SYDNEY EXHIBITION, 1879-1880.
FIRST AWARDS, WITH GOLD MEDAL FOR ESPECIAL EXCELLENCE
MELBOURNE EXHIBITION, 1880-1881.

THOMAS WHIFFEN, BATTERSEA, LONDON

MANUFACTURER OF

QUININE SULPHATE.

White and Unbleached, and all other important Salts of Quinine; as also of
QUINIDINE, CINCHONIDINE, AND CINCHONINE.

QUINETUM. The Alkaloids of India Cinchona Succirubra Bark.

QUINETUM SULPHATES.

LIQUID EXTRACT OF CINCHONA BARK.

SALICINE. The active principle of Willow Bark.

STRYCHNINE (HULLE'S).

The Advertiser is the PROPRIETOR and INVENTOR of this well-known Brand.

WYLEYS & CO., COVENTRY,

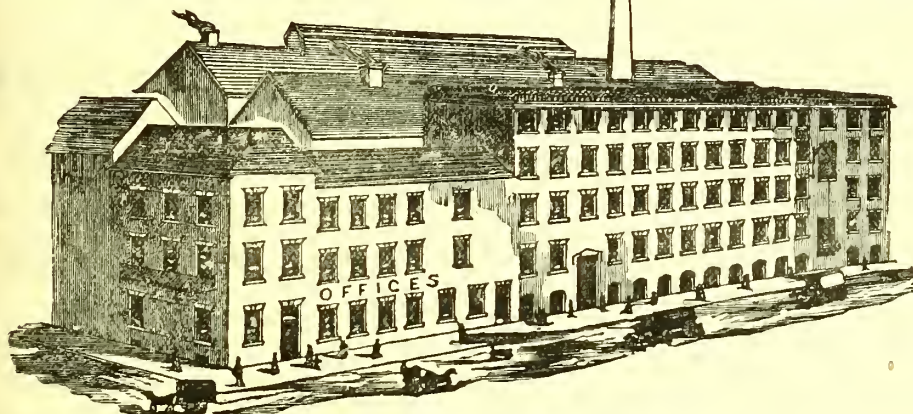
WYLEYS, WALKER & CO., 223 Upper Thames Street, LONDON, E.C.,

ESTABLISHED

1790.

Wholesale and Export Druggists

and Drug Grinders,



LABORATORIES AND DRUG MILLS AT COVENTRY.

MANUFACTURERS OF

Chemicals & Pharmaceutical Preparations.

OL. MENTH. PIP. RECT. (Wyleys).

Will absolutely pure, and Soluble in Rectified Spirit. Free from the harsh odour imparted by the oils of *Erigeron Canadense* and *Mentha arvensis*, both of which are invariably present in the American brands.

CERATIN ALB. (Wyleys).—CERATIN FLAV. (Wyleys).

purified semi-solid hydrocarbons. Inodorous and not liable to oxidation. Both forms when melted give perfectly clear s, which readily solidify to their original consistence. Our Ceratin alb. is so perfectly purified that in its liquid, as well as in its solid, state it is absolutely colourless.

OL. RICINI ELECT. (Wyleys).

Colourless and Tasteless Oil prepared from Decorticated Seeds. This oil, from never having been subjected to any chemical process of bleaching, will be found thoroughly active and reliable.

Chinoquinine.—The bleached crystallizable alkaloids of East Indian Red Bark (*Cinchona succirubra*).

Ferri et Chinoquinie Cit.—A "Scale" preparation containing 25% of mixed alkaloid of Red Bark.

Ol. Torrhue et Calcis Hypophosph.—A perfect emulsion, and of which we were the earliest English Makers.

Chen and its Preparations.—We were the first importers of this drug and the first introducers of its preparations—Liquid Extract, Syrup, and Essential Oil.

CASCARA SAGRADA — CONVALLARIA — VERBASCUM — GALIUM — AND ALL NEW REMEDIES.

COATED PILLS.

We are making on a large scale, and shall be pleased to forward List containing Recipes for every description of these, or to prepare special forms from customers' recipes.

EXPORT DEPARTMENT.

Mrs. W. & Co. are prepared to execute orders for Export, giving every attention to packing and the requirements of the Market for which goods are intended.

Bring direct representatives in Canada, Rio Janeiro, and Valparaiso, they are in specially good position with reference to the North and South American Continents.

SPANISH PRICE LISTS PUBLISHED QUARTERLY.

Mrs. W. & Co. will be happy to forward English and Spanish Price Lists, Book of Order Forms, and Pill List, any Chemist in the World on receipt of Business Card.

DR. LALOR'S PHOSPHODYNE

(TRADE MARK—PHOSPHODYNE.)

TWENTY YEARS' SUCCESSFUL PUBLIC TEST, and THOUSANDS OF TESTIMONIALS from all parts of the World, establish

PHOSPHODYNE

The only Safe, Prompt, Reliable, and Never-failing Phosphoric Remedy for Over-worked Brain, Sleeplessness, Harassing Dreams, Hurry, Worry, Waste, Anxiety, Excitement of the Higher Nervous Centres, Wasting Diseases, Nervous Prostration, Stomach, Liver, and Kidney Complaints, Impoverished Blood, Premature Decay, and all morbid conditions of the system dependent upon the deficiency of the Vital Forces.

DR. LALOR'S PHOSPHODYNE

Will keep in any Climate, and is therefore specially adapted for SHIPPING, and wherever introduced COMMANDS A LARGE SALE. DR. LALOR'S PHOSPHODYNE, from its immediate effects in cases of Exhaustion, Lassitude, Want of Stamina, Nervous Debility, and Malarial Diseases, ATTAINED A VERY LARGE SALE in Africa, China, East and West Indies, the Colonies, Turkey, Asia, and other Hot Climates.

Sold in Bottles, at 4s. 6d. and 11s., by all Wholesale and Retail Medicine Vendors throughout the World. Manufactured on at

PHOSPHODYNE LABORATORY,

By DR. R. D. LALOR, London, N.W. (The sole Proprietor and Originator of Phosphodyne.)

A supply of suitable Printed Matter in any Language for distribution, also attractive Show Cards, will be sent for Enclosure to any London agent, on receipt of a Letter of Advice from Agents.



BURGESS, WILLOWS & FRANCIS,
WHOLESALE & EXPORT DRUGGISTS
 AND
MANUFACTURING PHARMACEUTICAL CHEMISTS,
101 HIGH HOLBORN, LONDON

Price Lists sent on application. Special quotations given on Shipping Orders.

SIR JAMES MURRAY'S PURE FLUID MAGNESIA

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of

ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

When mixed with his ACIDULATED LEMON SYRUP, it forms a pleasant EFFERVESCING APERIENT, especially suitable for Ladies and Children.

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.

SIR JAMES MURRAY'S FLUID CAMPHOR

Is a valuable remedy in cases of SLEEPLESSNESS and NERVOUS DEPRESSION, and in general as a mild Sedative and Antispasmodic.

SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin
BARCLAY & SONS, 95 Farringdon Street, London.

he Chemische Fabrik auf Actien, vormal's E. Schering, Berlin,

MANUFACTURERS OF

SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

AC, CARBOLIC or Phenol Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
AC, GALLIC	Almost white needles	Freely and entirely soluble in alcohol or water.
PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
,,	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELOIDINE (Patent)	Gelatine plates	Purest Pyroxylin; inexplosive.
CHORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHORAL HYDRATE (Lieb- reich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CHLOROFORM (ex Liebreich's Coral)	Schering's original label	Free from foreign chlorides. Will leave no odour on evaporation.
CHLORON CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE	S.G. 1260, double distilled, bril- liantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IOINE	Resublimed, fine scales	Purest.
IOIFORM	Dry yellow scales	Purest, by medical reports.
POTASS BROMIDE	Fine white dry regular crystals ...	Perfectly free from iodide, and the most free from chloride.
CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
PERMANGANATE	Large and small crystals	Chemically pure.
IODIDE	Fine white dry regular crystals ...	Apply Barytic and other tests. This will never change colour.
SILVER, NITRATE	Fine large crystals	63 to 63½% pure silver.
SOL, CAUSTIC	Lump and stick, white	Chemically pure, and pure by alcohol.
SOL, SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine,

MANUFACTURER OF

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PERLIN PORCI (100%)	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

SCHERINGS'

PURE CHINOLINE AND ITS SALTS,

OR

ARTIFICIAL QUININE SUBSTITUTE.

SOLE WHOLESALE AGENTS—

A. & M. ZIMMERMANN, 27 MINCING LANE, LONDON, E.C.

For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.

RICHARD TWEMLOW,

Pharmacopœia, Throat Hospital, Proprietary, SPECIALITY LOZENGES.

SOMNICINE, AND CHLORODYNE MANUFACTURE,
91 UPPER BROOK STREET, MANCHESTER.

N.B.—As Specialities particularly worthy of notice may be mentioned the following:—Chlorodyne, Bouquet, Bronchial Cough (similar to Brown's Troches), Children's Cough Lozenges, &c., Pink Worm Tablets (a set meat) the most effectual Worm Medicine of its kind extant.

Price Lists and Samples free on application.

SCHIEFFELIN'S

Are made of the best materials; perfectly protected; entirely and quickly soluble coated while soft; not subjected to the injurious effects of heat in the process of manufacture. The mass is worked to the highest possible degree of uniformity, and subdivided with scrupulous exactness. The coating is an official pills, as well as any others ordered by the Medical Profession, can be furnished in this form. They are implicitly relied upon in every respect. The coating, while thoroughly protecting the pill, will not be found to in any way interfere with the action of the drug, and those who have found sugar or chalk-coated pills objectionable, owing to the liability of the coating becoming insoluble by age, will find our coating to dissolve as readily after many years as when first prepared. It, moreover, does not form a hard tough shell, as is the case with the ordinary gelatine coating. We claim and believe our Coated Pills to be nearer perfection than any similar goods that have been offered, and guarantee the pills to be as quickly effective as any uncoated pills that can be made.

SOLUBLE

PILLS

ALLEN & HANBURYS, Plough Court, Lombard Street, LONDON

LIQUOR BISMUTHI SCHACHT

Dose, 5j., diluted.

Great pains are taken to ensure the absolute purity of this preparation. It is not only freed from the ordinary contaminations of the metal, such as copper, arsenic, silver, &c., but that which so frequently causes an offensive odour to pervade the persons of those taking the ordinary preparations of Bismuth, namely Tellurium, is also most carefully eliminated.

SYRUPUS CINCHONÆ ALCOHOLICUS, SCHACHT.

Bark minus the woody fibre. Dose, 10 to 30 drops, diluted.

LIQUOR RHAMNI FRANGULÆ, GILES.

A real aperient, mild and constant. Dose, 5j. to 3iv., diluted.

SYRUPUS SENNÆ AROMATICUS, GILES.

Made by cold maceration—does not gripe. Dose, 5j. to 5ij.

EXTRACTUM CINCHONÆ LIQUIDUM, GILES.

Exhausted entirely with cold water, and prepared by a process specially devised to avoid the changes inseparable from prolonged evaporation.

Dose, 10 to 20 drops, diluted.

The above Preparations are manufactured by Mr. Schacht himself in the laboratory of the firm.

GILES, SCHACHT & CO.,
52 Royal York Crescent, Clifton;

And can be procured from all Wholesale Druggists in London and the Provinces.

SYMES & CO.



Pharmaceutical Chemists

LIVERPOOL,

EXPORT DRUG MERCHANTS

IMPORTERS OF

BRAZILIAN DRUGS

Araroba, Caroba, Tayuya, Coca, Baycuru,

Jaborandi, Quebracho, Guaco, Tonquin Beans, &c.

AMERICAN & CONTINENTAL SPECIALITIES

MANUFACTURERS OF

OL. LAVAND. RECT.

Now largely replacing the Mitcham Oil. 21/1

LAC BISMUTHI

LAC BISMUTHI ET CERIL.

HYDROBROMIC SYRUP OF HYPOPHOSPHITES,

London Dépôt—7 SNOW HILL.

TIKHEEL.

Si-ounce Bottles, one size only, Half-a-crown. Price 24s. dozen, subject to usual Patent Medicine Discount.

THE NEW REMEDY FOR NEURALGIA, TOOTHACHE, NERVOUS AND SICK HEADACHE.

Prepared only by

CLARKE, BLEASDALE, BELL & CO., YORK, ENGLAND,

and sold by all Wholesale Druggists and Patent Medicine Vendors everywhere.

Prie per gross, £11 8s., box free, cash with order, carriage paid. Export cases charged 5s. each, delivered f.o.b.

Den tance in full must accompany orders. For less quantity than 1 gross buyers will please write their Patent Medicine House or Wholesale Druggist.

SPECIAL QUOTATIONS FOR PARCELS OF FIVE GROSS AND TWENTY GROSS.

NE DOSE of Tikheel will in fifteen minutes generally remove the most severe form of Neuralgia, one bottle will effect a cure.

Tikheel is a **SAFE MEDICINE**, thus differing from most advertised remedies.

The word "Tikheel" is stamped on every bottle, the label is pale buff colour, with the Trade Mark (the back of a watch) in pale yellow underlying the printed matter. Any infringements of label or imitations of the word "Tikheel" will be rigorously proceeded against, being protected by the Trade Mark Act, &c.

The proprietors respectfully request perusal of the following genuine Testimonials, being a selection out of a very large number which are daily received:—

From Mr. A. ORLANDO CHERRINGTON, Vicar of Tivdiale, Tipton, writes, March 27, 1883.

Gentlemen,—Your valuable preparation "Tikheel" has been effectual in curing three cases of Neuralgia in my parish, one of two years' standing, in which extraction of teeth, &c., had no effect, various other remedies had been tried in vain; another of a very excruciating nature; and my own, which has been of frequent occurrence for some time.

From Mr. THOMAS CROSS.

The School, Poppleton, York.

Mr. Sirs,—I have suffered a long time from Neuralgia, which periodically attacks a decayed tooth. Lately I have tried "Tikheel," which, after the first dose, entirely removed the pain, and now at an interval of two months I have only had one very slight attack. I have found local application of no use whatever in the past, and remain, yours faithfully,
Messrs. Bleasdale & Co., Chemists, York. THOS. CROSS.

The Editor of the "WHARFEDALE AND AIREDALE OBSERVER" sends the following unsolicited:—

Gentlemen,—Your "Tikheel" is indeed a most remarkable medicine. I am one who places much faith in the efficacy of the numerous so-called remedies for Neuralgia, and I was therefore not very sanguine of relief from your "Tikheel," but having suffered severely for several weeks from Neuralgia, I was induced to make a trial of the medicine. After of an hour after taking the first dose the excruciating pain and I have had no return of it since. I am certain this medicine deserves to be generally known in order to be widely used and appreciated.

From Mr. Councillor RAWLING, York.

5 Swinigate, York, July 17, 1882.

Gentlemen,—I have great pleasure in giving testimony to the great benefit to be derived from your "Tikheel." I was very bad with Tic, but a dose of "Tikheel" cured me in half-an-hour. I cannot speak too highly of it.—Yours truly,
FRANCIS RAWLING (Town Councillor).

From Mr. CHAS. HAIGH, Skep Maker, Buresfield Road, Huddersfield.

Gentlemen,—My wife having been a very great sufferer for some time from Tic and Neuralgia, and having tried a good many medicines without receiving any benefit, was induced by Mr. Bygott, Chemist, to try a bottle of "Tikheel." Strange to say, after taking three doses of the medicine she was completely cured, and has not had the least pain since.

You are at liberty to make any use of this testimonial you think proper, as I think every one should know there is such a certain and rapid cure for Neuralgia.

From Mr. THOS. HORROCKS, Temperance Lecturer, Darwen.

10 Melita Terrace, Darwen, February 1, 1883.

Gentlemen,—My daughter has been troubled very much with Neuralgia for the last six months, and having seen your advertisement in the paper, I purchased a bottle of your "Tikheel." I am glad to say the first dose gave her immediate relief, and after taking one small bottle, she was completely cured, and has not had an attack since.—Believe me, Gentlemen, yours gratefully,
THOS. HORROCKS, Temperance Lecturer,
Western Temperance League.

Messrs. Clarke, Bleasdale, Bell & Co., York.

ESTABLISHED UPWARDS OF A CENTURY.

BUTLER, McCULLOCH & CO.

COVENT GARDEN MARKET, LONDON.



Wholesale Importers and Exporters of all kinds of
**MEDICINAL AND CULINARY HERBS, ROOTS, BARKS, SEEDS, AND
 PREPARATIONS. DISTILLERS OF PERFUMED & MEDICINAL
 WATERS. IMPORTERS OF LEECHES.**



THE GREATEST CARE & JUDGMENT USED IN THE SELECTION & PACKING OF INDENTS.

SPECIALITIES.—Herbs (Culinary and Medicinal) packed in Patent Cardboard Boxes
Which can be opened for examination of contents and closed up again without detriment to the package.

PRICE LISTS ON APPLICATION.

CHRISTIANI & CO.'S FLEXIBLE MEDICINE CAPSULES

THE BEST TASTELESS MEDIUM TO TAKE NAUSEOUS MEDICINE.

They are made in Six Sizes :—			No. 3 contains about 35 drops (30 min.)			No. 6 contains about 80 drops (65 min.)		
No. 1 contains about 12 drops (8 min.)			" 4 " " 45 " (40 ")					
" 2 " " 25 " (18 ")			" 5 " " 60 " (55 ")			60 drops equal to about one teaspoonful		

THE GREAT ADVANTAGES OF CHRISTIANI'S CAPSULES ARE—

That they are PERFECTLY FLEXIBLE, and therefore readily accommodate themselves to the smallest throat. That they are PLEASANTLY FLAVOURED and PALATABLE alike to adults and children. That they are PERFECTLY SOLUBLE, and have NO DELETERIOUS influence on the stomach. That they contain a LARGER QUANTITY of Castor Oil, Cod-liver Oil, or other nauseous medicine can be taken in ONE Capsule AT A TIME than can be done by any other capsules sold. A Capsule No. 6 can be swallowed with greatest ease, the flexibility being extraordinary. Especially recommended for CHILDREN.

COD-LIVER AND CASTOR OIL, Santal Oil, Balsam Copaiba, Turpentine, Quinine, Charcoal, &c.

Capsules filled with any Oil according to instructions.

EMULSIO SANTALI ALKALINA. (P. N. TAYLOR)

It is found that this new remedy in this partially digested form is more easily assimilated and no nauseating effect produced on the most delicate stomach. They impart absolutely no taste in the mouth or odour to the breath after being taken, an advantage possessed by no other capsule. Though containing water the capsule is perfectly soluble.

Offices—11 Queen Victoria Street, London, E.C.

Trade Notice.]  [Trade Notice

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—

11 RUSSELL STREET, DOWNING STREET, MANCHESTER.

SHOW CARDS AND BILLS ON APPLICATION.

"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE

The Great BLOOD PURIFIER and RESTORER.

(Registered Trade Mark—"BLOOD MIXTURE.")

The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses, at 24s. and 108s. per dozen, less the usual discount.

Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, or Advertisements, or in any way infringing their rights.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

THE LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

THE LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1883, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never knew any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant published the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—



ONLY GENUINE.

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinburgh
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams,	"	Sanger, J., & Sons,	London
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dobbin, W., & Co.,	Belfast	Hunt, A., & Co.,	"	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	"	Lynch & Co.,	"	Treacher, Hodgkinson & Co.,	"
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westrup, J. B.,	Kensington
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Evans,	London	Maw & Son,	"	Woolley, James,	Manchester
Ferris & Co.,	Bristol	Meggison & Co.,	"	Wyles & Brown,	Coventry
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh	Yates & Co.,	London

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The use of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

T. DAVENPORT, Pharmaceutist,
83 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

RELIEF FROM COUGH IN TEN MINUTES.

HAYMAN'S BALSAM OF HOREHOUND



Is the most certain and **SPEEDY REMEDY** for all **DISORDERS** of the **CHEST** and **LUNGS**. In Asthma and Consumption, Bronchitis, Coughs, Influenza, Difficulty of Breathing, Blood, Whooping Cough, Hoarseness, Loss of Voice, &c., this Balsam gives instantaneous relief and properly persevered with, scarcely ever fails to effect a rapid cure. It has now been tried for many years and has an established reputation, and many thousands have been benefited by its use.

IT HAS A MOST PLEASANT TASTE.

IMPORTANT TESTIMONIAL.—"AMPORT FINS, ANDOVER, MAY 29, 1869.—Sir, for some years had your Balsam of Horehound for Mrs. B. Webster, and intended writing to tell you much benefit she has derived. She was considered consumptive, but the Balsam has quite restored her and she is now quite strong. I have recommended you dozens of customers, and all have been pleased with it.—I am, yours, &c., H. B. WEBSTER.

Mr. HORROX, Chemist, Mildenhall, writes to say:—"One of my customers says your Balsam is a sixpence a drop."

IN THE NURSERY it is invaluable, as children are fond of it and take it eagerly. Immediately it is taken coughing ceases, restlessness gone, and refreshing sleep ensues. No lady who has once tried it would ever afterwards be without it.

Prepared only by **A. HAYMAN, Chemist, Neath**; and sold by all Chemists. Price 1s. 1½d. and 2s. 9d. per Bottle.

WHOLESALE AGENTS.—W. Sutton & Co.; Barclay & Sons; Newbery & Sons; Hovenden & Sons, 95 City Road, London; Grimwade & Co., Melbourne, Elliott Brothers, Sydney and Brisbane, Australia; Kempthorne, Prosser & Co., Auckland and Dunedin, New Zealand; Smith, Stanistreet & Co., Calcutta.

PRITCHARD'S TEETHING & FEVER POWDERS

Are excellent for Children from Three Months to Twelve Years, when cross, feverish, or restless.

Are recommended as an Antibilious Aperient for Adults, removing Nervous and Bilious Headache, &c.

29 Harper Street, Stretford, Manchester, Jan. 16, 1882.

Mr. J. PRITCHARD.
Dear Sir,—I wish to inform you that my child has been very ill from worms and severe fits; the doctor who attended him said it was impossible for him to recover; nothing could save him. But I was induced to try your Teething Powders, and am happy to say he is now quite well; the fits have left him, and he is a bonnie boy.

Yours truly, THOMAS INGHAM.

PREPARED ONLY BY THE SOLE PROPRIETOR,

J. PRITCHARD, Chemist, 67 Chorlton Road, Manchester;

And CHEADLE, near MANCHESTER.

A Packet will be sent (post free) for Fourteen Stamps.—Sold by all Chemists.

DENOVAL'S MEDICINAL CAPSULES ARE THE BEST AND CHEAPEST.

Attention is called to the following Articles:—

	Trade Price.	Retail Price.
Peruvian Mixture Capsules	12/ 6/ 9/	8/ 6/ 9/
Matico Oil and Copaiba Capsules	13/	13/
Santal Oil Capsules (36 in each box)	25/	4/ 6/ 8/
Cubeb Oil and Copaiba Capsules	10/	2/ 1/ 3/
Copaiba, Cubeb Oil, and Santal Oil Capsules	18/	4/ 4/ 4/
Copaiba Capsules, No. 0	7/	8/
" " No. 1	6/ 6/	8/
" " No. 2	6/	8/
Copaiba, Alum and Cubeb	7/	8/
Compound Ferruginous	7/	8/
Male Fern Oil	13/	8/
Cod Liver Oil	6/	8/
Castor Oil	5/ 6/	8/
Denoual's Injection (to ensure a radical cure in two days)	18/	8/

ALL DRUGS WARRANTED TO BE GENUINE.

Jules Denoual, Carlton House, 4 New Cross Rd., London S.

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d., 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs. stamped.

LIQ. CHLORODYNE

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

4 ozs., 4s.; ½ lb., 5s. 6d.; 1 lb., 10s.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES,

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes. Filled, Lined and neatly got up for the counter, 4s. 6d. and 9s. per doz.

A. P. TOWLE, Chlorodyne Manufacturer
75 BACK PICCADILLY, MANCHESTER.

Bills with name on application with instructions for forwarding.

PRECIPITATED CHALK.

Guaranteed Finest and Purest Quality.

MANUFACTURED BY LEVERMORE BROTHERS,
13 CULLUM STREET, LONDON.

Being the largest Manufacturers are prepared to execute orders on the shortest notice.

Pure Chemicals of every description for Technical, Manufacturing, and Scientific Purposes.

ACID ACETIC FORT, 1.040.

Prime Quality and Guaranteed from Soda.

MANUFACTURED BY DUNN & COMPY.

(LATE OF PRINCES SQUARE, FINSBURY),

MANUFACTURING CHEMISTS,

STIRLING CHEMICAL WORKS,
WEST HAM, E.

FORSTER & GREGORY,

MANUFACTURING CHEMISTS,

LONESOME CHEMICAL WORKS, STREATHAM COMMON, S.W.,

Makers of all the Hypophosphites; also of Valerianic Acid and all Valerianates, Bisulphide of Carbon, Chloride of Sulphur, Chlorate of Baryta, and Chemicals for Pyrotechnical and all other purposes.

All Coal Tar Products for the Manufacture of Aniline Dyes.

Refiners of Sulphur in Rock or Roll, Ground Sulphur, Washed Sulphur, Milk of Sulphur, Precipitated Sulphur. Guaranteed Pure.

[ESTABLISHED 1852.]

SAMPLES AND QUOTATIONS ON APPLICATION.

[ESTABLISHED 1852.]

NEWTON, KEATES & CO.,

28 King Street, and 3 Cooper's Row, Liverpool,

MAKERS OF THE PUREST FORM OF

PHOSPHATE OF SODA,

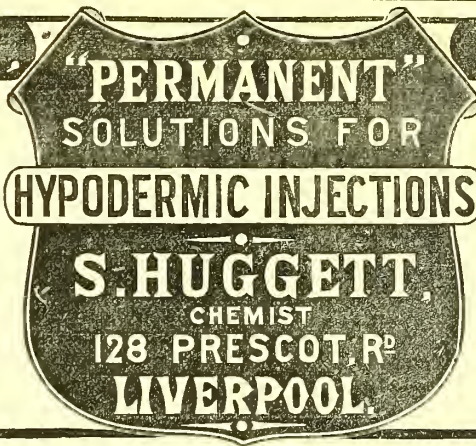
PHOSPHORIC ACID, &c.,

Also Chemical Manure Manufacturers.

ERGOTINE.

Their **CHIEF ADVANTAGES** are:—

1. Ready for **IMMEDIATE** use.
2. Definite and uniform strength.
3. Non-liability to change or to become inert.
4. They contain neither Acids nor Alcohol, and consequently are not liable to form abscesses or cause pain.

**MORPHIA**

Atropine, Esari,
Strychnine, Curar,
Apomorphia, Caffei,
Chloral, * Pilocopi,
Nitri'e Aym, † Hyosar,
etc. et
In Pocket Cases, containing Six Scl
at 2s. per Case, or 20s. per
* Pilocarpine, 3/ per case.
† Hyoseyamine, 3/6 per ea

Extracts from a few recent**Testimonials, Letters, &c.**

Dr. JORDAN, 48 Hercules Buildings, Lambeth, S.E., Sept. 20, 1881.
I have been using your solutions constantly in practice in Edinburgh; but now that I have come to London I find great difficulty in obtaining these. If you have any London agents, please give their name and address. I will thank you to send per return.

Dr. DIXEY, Great Malvern, December 14, 1881.
Kindly send me a case of your "Permanent" solution of Ergotone as I am immensely pleased with the preparation, and always use it in preference to preparations of Ergotone, finding it more reliable.

Dr. WILSON, Consulting Physician, Ladies' Charity and Lying-in Hospital, Liverpool.
I have used your "Permanent" Solution of Ergotone for subcutaneous injection, ever since its introduction (some six years ago), and have always found it successful, never followed by abscess or local inflammation.

Dr. CRESWELL RICH, Pathologist to the Royal Infirmary, and Medical Officer, H.M. Post Office, Liverpool.

Dr. JOINSTONE, 53 Oxford Street, Abercromby Square, Liverpool.
May 17, 1882.
I have great pleasure in bearing testimony to the great value of your "Permanent" Solutions for Hypodermic Injection. I have used the Solutions of Ergotone, Morphia, and Strychnine, with benefit to my patients, and credit to myself. In no case during four years use of them, have I found any abscess or inflammatory mischief follow their injection. In hemorrhage from various parts of the body I have found your Ergotone a speedy remedy. The strychnine preparation acted exceedingly well in a case of paralysis. The solutions are not only efficient, but convenient and portable.

Your Morphia Solution is an admirable preparation. I used it last evening on an elderly lady patient, who has a very delicate and easily irritated skin, and pleased to find this morning that it had set up less irritation than any other preparation that I have tried in her case. Please send me two more cases. I shall be happy to recommend it to my medical friends requiring a good Morphia Solution.

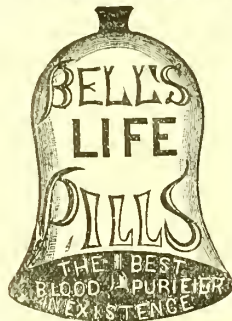
Dr. FERGUSSON, Peebles, N.B., March 18, 1882.
I find your Morphine Solution most admirable, and I use no other.

Dr. CLEGG, Edge Lane, Liverpool.
Please send the Morphia Solution to Captain ——. It is for his own use on paroxysms of pain. . . . Your preparation preferred, though many have lauded it.

HOME, COLONIAL, and FOREIGN CHEMISTS and FIRMS are offered **SOLE AGENCIES**, and would be supplied at long discounts, and them to supply the Trade. (Delivered in London.) Descriptive Lists of "Permanent" Solutions, with their Strength, Doses, Uses, &c., a few Cases, and Testimonials, supplied to Agents.

LONDON AGENTS—Messrs. Maw, Son & Thompson, Aldersgate Street; Messrs. Down Bros., 3 St. Thomas Street, Borough. **EDINBURGH**—Mr. A. Young, North Bridge and Forest Road. **YORK**—Aitkin & Co.

BELL'S PATENT LIFE PILLS AND OINTMENT



Are acknowledged by thousands to be the best and safest medicine ever offered to the public.

It is impossible to equal them in the worst cases of Nervousness, Liver Complaints, Indigestion, Lumbago, General Debility, Bile, Disordered Stomach, Costiveness, Female Complaints, Wind, Skin Diseases, all Eruptions, Boils, Ulcers, Burns, Cancers, Abscesses, Piles, &c., &c.

Handbills and Posters, with name and address, sent to any Chemist, or for enclosure to any wholesale house, on receipt of Postcard.

In 1/1½, 2/9, and 11/ Boxes and Pots.

Sole Manufacturers, W. BELL & CO., Reading Berks.

W. F. SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1½d. and 2s. 9d. per Box.

Registered.] TARAX AND PODOPH. [Registered.

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Special caution needed against injurious imitations. Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

PREPARED ONLY BY

W. F. SMITH, M.P.S.,

280 WALWORTH ROAD, LONDON.

To be had of the usual Houses at Home and Abroad.

MAISH'S LIVER PILLS

In all the Wholesale Lists for years past.

Sale Established 29 Years.

These Pills create a lasting demand wherever they are introduced. One dozen 1s. 1½d. size, with 1,000 exceptionally good Counterfeit Stamped in Colour, with Name and Address, forwarded carriage paid, receipt of remittance for Nine Shillings.

Proprietor, EDWARD MAISH, Chemist, BRISTOL.

KEARSLEY'S WIDOW WELCH'S FEMALE PILLS.

These are universally acknowledged to be the Genuine and Druggists may safely recommend them.

CAUTION!

The proprietors of Kearsley's Original Widow Welch's Female Pills are it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their preparation, the Original Recipe having been sold to the late G. Kearsley of Fleet Street, whose Widow found it necessary to make an Affidavit of the protection of her property, in the year 1798. The Genuine Recipe of Widow Welch's Female Pills has been prepared by them for 96 Years! Chemists are particularly requested to remark that, in testimony of authenticity, each bill of directions contains an Affidavit bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

1,000 Handbills, with Name, and 2 Tin Showcases.

Supplied with all Orders for One Dozen (13) Boxes,

PRICE 27s. PER DOZEN, subject to usual Discount.

Special Quotations to Shippers and for large quantities, on application to

J. SANGER & SONS

489 OXFORD ST., LONDON, W.

A WONDERFUL MEDICINE!

Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.



TRADE MARK.
No. 1416.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND.

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX,

PRIZE MEDALS INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE

KILNER BROTHERS,
GLASS BOTTLE MANUFACTURER
SOLICIT ORDERS FOR GLASS BOTTLES OF ALL KINDS,
FEEDING BOTTLES, GLASS MEASURES, SYPHONS, VAN BOXES & CASKS.

Illustrated Book and Price List on application to

No. 3 GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

THE MOST PERFECT GLASS SYRINGE WILLIAMS'S PATENT (No. 2,756),

Which is so simple in construction that it cannot possibly get out of order in any climate or temperature.

These Syringes have no Corks, the Piston being held by a solid plug with mount attached, fitted to the Syringe by an India rubber Band. They are both superior in appearance and effective in action.

The Mounted Plugs are made of Vegetable Ivory, Ebony, Boxwood, Cocus, &c.

*Of all the Principal Druggists' Sundrymen, Surgical Instrument Makers, &c.***E. C. WILLIAMS,**

Manufacturer of all descriptions of GLASS SYRINGES, TUBES, HOMŒOPATHIC VIALS,
79 FAIRFOOT ROAD, BOW, LONDON, E.

WILLIAM TOOGOOD, 35, 36, and 37 Mount Street, Grosvenor Square LONDON, W.

GRADUATED MEASURES,

Stamped and Verified as required by the Weights and Measures Act.

dr. 2dr. ½oz. 1oz. 2oz. 3oz. 4oz. 6oz. 8oz. 10oz. 20oz. 40oz.
9/6 11/6 9/ 10/3 11/6 13/ 14/6 18/ 19/ 21/ 29/ 39/ per doz.

CAUTION.—Each Measure manufactured by me bears my name as a guarantee.

GRADUATED MEDICINE GLASSES

IN GREAT VARIETY.—See Price List.

INCORRODIBLE WHITE METAL SCREW-TOP BOTTLES,

Suitable for Vaseline, Pomades, Glycerine, Jelly, &c., &c.

DISPENSING BOTTLES,

Warranted Accurate Measure and Graduation
SPECIAL ARRANGEMENTS MADE FOR LETTERING AND
WITH NAME, &c.

**TOOGOOD'S NEW SHAPE BURN'T
COLD CREAM POTS,
WITH CLIENT'S OWN NAME BURN'T
SPECIAL DESIGNS.**

PRICES AND SPECIMENS UPON APPLICATION.

*Illustrated Price List of Glass Bottles, Earthenware,
Druggists' Sundries, &c., forwarded upon application.*

Feeding Bottles.
The ECLIPSE."



White Fittings, 30/ per gross.
Best Black Fittings, 3/ per gross.
The above are put up in Dozen Wood partitioned Boxes.

HEARN, RIDDELL & CO.,

Glass Bottle Manufacturers,

381 KINGSLAND ROAD, LONDON, E.

GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE, BLUE, AMBER, ACTINIC GREEN, or any other colour required.

SCREW NICKEL CAPPED POMADES, HONEY POTS, JELLY JARS, &c., &c.

SPECIAL ATTENTION GIVEN TO QUALITY.

Quotations, post free, to any part of the world on application.

The above will be found the BEST and CHEAPEST House in the trade.



FRENCH SCREW GLASS POTS & BOTTLES,

WITH METALLIC NICKLED CAPSULES.

The above new method will show advantageously Jams, Jellies, Honey, Dragés, Cachous, Pills, Lozenges, &c.; is specially adapted for Export, and excels all others for neatness and elegance. Made in various new Designs—Pots, "Kalis" tube-shaped Bottles, Bocals, &c. Spécialité for Bottles for all kinds of Confectionery, Essences Manufacturers, and Sundries.

THE LARGEST ASSORTMENT IN ENGLAND.

G. V. DE LUCA, French Flint Glass Manufacturer, 6 and 7 Long Lane, LONDON, E.C.

WHOLESALE AND EXPORT AGENTS—S. MAW, SON & THOMPSON, 7 TO 12 ALDERSGATE STREET, LONDON, E.C.

Illustrated Catalogue for Patent Screw Capsule on application.

SHOP BOTTLES AND JARS

WITH BURNT-IN LABELS

(Black letters on a ground of pink or white enamel).

Narrow-mouthed and Wide-mouthed Bottles, well Stoppered.

Oiled and Tube-stoppered Oil Bottles.

Syringe Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass.

Lozage Jars with Cut Glass Knobs.

Out-Perfume Bottles, Round, Oval, and Square.

Show Jars of Best Porcelain, thoroughly Grease-proof.

Lab. Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain.

PRICE LIST ON APPLICATION.

A Large Variety of Samples on Show at

H. POTHS & CO.,
4 SUGARLOAF COURT,
5 LEADENHALL STREET, LONDON, E.C.

Amongst others the following have been supplied with these bottles

and jars:—
B. & Co., Bridlington Quay; Büchner, M., 124 High Street, White-church London, E.; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln; Croyn, E. H., Newcastle-under-Lyme; Davis, Hayton, High Harrogate; Donan, Richd., Blackrock, near Dublin; Durrant, G. R., Hertford; Hall, Bal, 552 Kingsland Road, London, N.; Howell, E. H., & Co., Narberth; James, J. T., Nottingham; MacMillan, John, Glasgow; Potts, Charles, Llanelli; Proctor, Wm., & Son, Newcastle-on-Tyne; Roberts, D. P., Croydon; Robinson, H., Baildon, near Leeds; Sanderson, A., Waltham; Sharpe & Son, High Street, Notting Hill, London, W.; Smith, J., Manchester, opposite the Assize Court; Taylor, P. N., 14 Ball Street, London, E.C.; Twinberrow, W., & Son, 80 Wigmore Street, London, W.; Waterall, Geo., & Sons, Nottingham.

Office, Show Rooms, and Factory—

10a and 46 De Beauvoir Crescent,

(Near Whitmore Bridge.)

DOWNHAM ROAD, KINGSLAND, LONDON, N.

LLOYD RAYNER,

Medical and General Shop Fitter,

SHOW CASE MAKER, FIXTURE DEALER, &c.,

Has removed from 333 Kingsland Road to more commodious premises at above addresses, where the Show Rooms are complete with every description of Shop Fittings, Show Cases, and utensils required by Chemists, Surgeons, Dentists, and all Trades.

Chemists' Secondhand Fixtures, Stock, and utensils bought and exchanged.

LLOYD RAYNER'S £75 CHEMIST'S SHOP,

Fitted complete with all New Goods, including Glass Show Cases, Gold-Labelled Shop Bottles, Jars, Carboys, &c. If for Export, suitable for any climate, including packing cases, and delivered to any of the London Docks free, £85. The above fittings are suitable for a shop 14 ft. long by 12 ft. wide.

Also a Second Quality Chemist's Shop is fitted complete for £55. If for Export, £65.

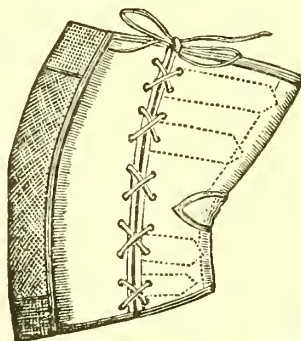
Hours of Business, 9 a.m. to 6 p.m. Saturdays, 9 a.m. to 1 p.m.

N.B.—The above Premises are within a few minutes' walk of Haggerston Station, N.L. Railway, or Omnibuses and Trams.

HAYWOOD'S SURGICAL APPLIANCES



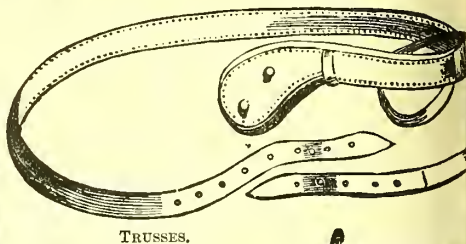
LADIES' AND GENTS'
CHEST-EXPANDING
BRACES.



MAGNETIC APPLIANCES,
KNEE CAPS, BELTS, &c.



ELASTIC
STOCKINGS.



TRUSSES.

Greatest attention paid to Special
Orders, which are invariably
forwarded per return of post.



SUSPENSORY BANDAGE.

List of Prices and Directions for Measurement forwarded on application.

J. H. HAYWOOD, Castle Gate, NOTTINGHAM

Original Plaister Works.

ESTABLISHED OVER 60 YEARS.

A. De St. Dalmas } 40 Belgrave Gate, Leicester.
(Formerly MOOR),

MEDICAL PLAISTERS

Of all kinds (Best Quality) for HOME and EXPORT. PATENT
POROUS PLAISTERS—Yards or Boxes.

Order "St. Dalmas's" through Wholesale Houses. Prices on application.

FRANCIS'S

BRONCHIAL PROTECTORS

REGISTERED TRADE MARK.

Is the best preventive and cure of Bronchitis, Asthma, Winter Cough,
Tight Breathing, and all Throat Complaints. 1s. 1½d. & 2s. 9d.
Mr. J. D. Fisher, Chemist, Blackpool, in ordering another supply says:
"I have tried it myself, and have received great benefit from it. My customers
speak highly of its virtues. Have sold the last, so be prompt, please."

Manufactured by **A. DE ST. DALMAS**, Leicester.
(Formerly MOOR),

LINDSEY & SONS,

EXPORT

TRUSS & BANDAGE MANUFACTURERS

32 LUDGATE HILL,

AND

40 GRACECHURCH STREET, LONDON, E.C.

NETT PRICES.—1883.

	Per dozen.		Per dozen.
COMMON PRINCIPLE TRUSSES, Basil and Chamois	£0 16 0	SALMON & ODY'S EXPIRED PATENT, Single, White or Red Roan ..	£1 10 0
Ditto Mole Lined 18s. and	1 0 0	Ditto Calf and Silk sewn	1 10 0
Ditto White or Red Roan	1 4 0	Ditto Double, Basil and Chamois, £2 2s. and	2 10 0
Ditto Calf Covered, Silk Sewn	1 10 0	Ditto " White or Red Roan	3 10 0
DOUBLE TRUSSES, COMMON PRINCIPLE, covered Basil and Chamois	1 4 0	Ditto " Calf, Silk sewn	3 10 0
Ditto Mole Lined	1 6 0	VERY NARROW, SALMON & ODY'S PRINCIPLE, as "Wickham's," a	2 10 0
Ditto White or Red Roan	1 10 0	Superior Truss, Single	6 10 0
Ditto Calf and Silk sewn	1 15 0	Ditto Double	6 10 0
SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imper-		COLE'S EXPIRED PATENT TRUSSES, Single, covered best Doeskin	4s/ and 6 10 0
ceptible—		Ditto Double, covered best Doeskin, 9s/ and	8 10 0
Plain, Single	1 12 0	MOC-MAIN TRUSSES, Plain, Stuffed real Moc-Main—	7 10 0
Best Covered, Single	2 5 0	as White's, £3 12s. Double	7 10 0
Plain, Double	2 2 0	Ditto Sunk Springs, ditto—	10 10 0
Best Covered, Double	2 16 0	as White's, £5 8s. Double	10 10 0
SALMON & ODY'S EXPIRED PATENT, Single, Basil and Chamois ..	1 4 0		

LINDSEY & SONS' Trusses have long maintained a high reputation for quality, and they will
happy to send their full descriptive price list on receipt of address, post free.

Customers are requested to order specially **LINDSEY & SONS' TRUSSES**, either direct or through a
Wholesale House.

SPECIAL NOTICE.



TRADE MARK.

LYNCH & CO.

PRIZE MEDAL,



SYDNEY, 1879.

Be to subjoin Prices for Dispensing Bottles in Original Packages.

BEST GREEN FLINT, FLATS OR OVALS.

1 1/2 oz.	2 oz.	3 & 4 oz.	6 & 8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	32 oz.	40 oz.	
1/-	8/-	9/-	13/-	14/6	17/-	21/-	28/-	35/-		per gross.

ORDINARY GREEN, FLATS OR OVALS.

1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	
6/3	6/3	6/8	6/8	7/9	7/9	11/-	12/-	15/-	20/-	per gross.

CONTENTS OF ORIGINAL CRATES, viz.,

1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	32 oz.	40 oz.
12	10	8	7	6	5	4	3 1/2	2 1/2	2	1 1/2	1 gross

May be made up of assorted sizes, if preferred.

BEST QUALITY, WHITE FLINT,

ROUND MOULDED VIALS.									
1 lb.	2 dr.	1/2 oz.	1 oz.	1 1/2 oz.	2 oz.	3 oz.	4 oz.		
3/6	4/-	4/6	5/-	5/6	6/9	8/3	10/-		per gross.

DIRECT FROM WORKS, IN QUANTITIES OF NOT LESS THAN ONE CRATE.

CARRIAGE PAID TO

Barro-in-Furness, Bedford, Birkenhead, Birmingham, Blackburn, Bolton, Bristol, Bury, Bury (ancs.),	Buxton, Cambridge, Coventry, Darlington, Derby, Dudley, Fleetwood, Glasgow, Grantham, Halifax, Hanley, Harwich,	Horncastle, Hull, Ipswich, Kidderminster, King's Lynn, Lancaster, Leeds, Leicester, Lichfield, Lincoln, Liverpool,	London, Loughboro', Louth, Lowestoft, Macclesfield, Manchester, Market Harboro', Middlesbro', Newark, Northampton, Norwich,	Nottingham, Oldham, Oswestry, Peterboro', Preston, Rochdale, Rugby, Shrewsbury, Stafford, Stamford, Stockport,	Stourbridge, Walsall, Wellingboro', West Hartlepool, Wigan, Wisbech, Wolverhampton, Worcester, Wrexham, Yarmouth, York.
--	--	--	---	--	---

SECOND QUALITY, WHITE FLINT,

ROUND MOULDED VIALS.									
1 lb.	2 dr.	1/2 oz.	1 oz.	1 1/2 oz.	2 oz.	3 oz.	4 oz.		
2/6	2/9	3/-	3/4	3/10	4/6	5/6	6/6		per gross.

ROUND SHOULDERED NARROW-MOUTH VIALS.									
2/6	2/9	3/-	3/4	3/10	4/6	5/6	6/6		per gross.

IN ORIGINAL PACKAGES, IN LONDON. PRICES NET CASH, MONTHLY.

LYNCH & CO.,

ALDERSGATE STREET, LONDON, E.C.

THE MORGAN CRUCIBLE COMPANY

(THE PATENT PLUMBAGO CRUCIBLE COMPANY),

Sole Manufacturers of MORGAN'S and SALAMANDER CRUCIBLES.

PORTABLE FURNACES.

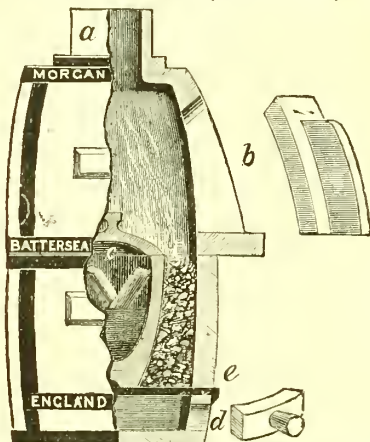
IRON BOUND. EXTERIOR DIMENSIONS.

For MELTING GOLD, SILVER, COPPER, &c.

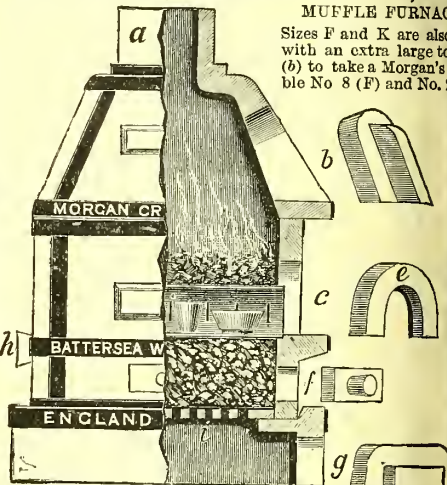
For ASSAYING, DENTAL WORK, &c.

MUFFLE FURNACE.

Sizes F and K are also with an extra large to (b) to take a Morgan's No 8 (F) and No. 10 (K).

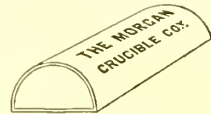


a. Socket on which to fix iron chimney. b. Door for fuel. c. Muffle. d. Door of muffle. e. Muffle arch. f. Door for regulating draft. g. Door for regulating draft. h. Fire-clay grate.



a. Socket on which to fix iron chimney. b. Door for fuel. c. Muffle. d. Door of muffle. e. Muffle arch. f. Door for regulating draft. g. Door for regulating draft. h. Fire-clay grate.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	For Morgan's Crucible.	Price, £ s. d.
A	9 1/2	235	17 1/2	445	No. 2	1 0 0
B	9 1/2	248	20	508	" 4	1 5 0
C	11	280	22	559	" 6	1 10 0
D	13 1/2	349	26	660	" 8	2 5 0
E	14 1/2	369	28	712	" 12	3 0 0
F	18	457	32	813	" 16	4 0 0



MUFFLES.

With or without apertures.

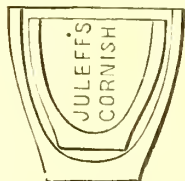


No.	Long, in.	Wide, in.	High, in.	Price, per doz.	No.	Long, in.	Wide, in.	High, in.	Price, per doz.
A	7	3 1/2	2 1/2	12/	G	11	4	3 1/2	21/
B	7 1/2	4 1/2	2 1/2	15/	H	10 1/2	5 1/2	3 1/2	25/
C	8	4 1/2	3	18/	J	12	6	4	33/
D	8 1/2	5	3 1/2	21/	K	14	8	5	48/
E	9	5 1/2	3 1/2	24/	L	15	9	6	54/
F	10	6	4	27/					

Sizes A to F, also K, are suited for the Furnaces of the same letters.

G to L have one slit at back only, none at sides.

In addition to those priced above, Muffles are made of all shapes and sizes, suitable for Assayers, Enamellers, Dentists, &c.



ASSAY CRUCIBLES.

FOR COPPER.

CORNISH FORM AND QUALITY (JULEFF).

Nest of Two	High, in.	Hauteur, milli.	Diam. in.	Diam. milli.	Price, per doz.
1	3 1/2	883	3	077	2/ per doz.
2	2 1/2	064	2	051	"
Single..	2	051	2 1/2	064	1/ "

All sizes and shapes to order.

FOR TIN.

High, in.	Hauteur, milli.	Diam. in.	Diam. milli.	Price, per doz.
3 1/2	083	3	077	6/ per doz.

Covers, 2/ per doz.

FOR LEAD.

3 in. diam., .077 diam. milli., with Covers, 2/3 per dozen.
Other sizes to order.

FOR GOLD.

THESE ARE PERFECTLY SMOOTH, AND OF THE CORRECT POROSITY.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	Price, per doz.
A	1 1/2	027	1 1/2	027	2/
B	1 1/2	032	1 1/2	032	2/
C	1 1/2	038	1 1/2	038	2/
D	1 1/2	045	2	051	2/

Covers for either size, 6d. per doz.

POROUS BATTERY CELLS

OF SUPERIOR QUALITY.

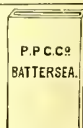


FLAT, WITH EARS.



ROUND.

LIST OF PRICES ON APPLICATION.



FLAT.

NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's and Salamander Crucibles), Battersea Works, LONDON, S.W.

E. GOULD & SON,

Manufacturers and Importers of

HOMŒOPATHIC MEDICINES

AND

HOMŒOPATHIC SUNDRIES OF ALL KINDS.

PRICE LISTS OF MEDICINES, MEDICINE CHESTS, &c., POST FREE TO ANY PART OF THE WORLD.

59, MOORGATE STREET, LONDON, E.C.

ORIGINAL AND ONLY GENUINE

HOMŒOPATHIC ABSORBENT WAFERS

(REGISTERED),

For administering Tinctures of all Dilutions without the inconvenience of Dropping or the necessity of Water.

MRS. CONYNGHAM & CO. are convinced many Homœopaths would prefer the use of Tinctures to Pilules, were it not for the inconvenience experienced in dropping them, and the necessity of water for the administration of each dose; consequently they have introduced these **ABSORBENT WAFERS** as a successful mode of meeting this difficulty.

These Wafers are so prepared that, when placed over the mouth of the bottle (which is carefully tilted), they absorb the medicine. The Wafer is then immediately placed upon the tongue to dissolve like an ordinary Pilule; thus at once dispensing with the trouble of dropping and the use of water.

"Very useful for business people. We wish the Wafers all success."—*Homœopathic World*.

"The Wafers will be found very popular, as they add considerably to the convenience of administration."—*Chemist and Druggist*.

ONE SHILLING Boxes only, with directions (in Spanish or German when required), by the Inventors—
CONYNGHAM & CO., Baggot Street, DUBLIN.

(The Original Green Label, CONYNGHAM & CO., 13 Stephen's Green North, Dublin).

London Agents: **JAMES EPPS & CO., 48 Threadneedle Street; E. GOULD & SONS, 59 Moorgate Street.**

CAN BE OBTAINED THROUGH ALL THE WHOLESALE HOUSES.



HOLLOWAY'S PILLS AND OINTMENT

Are the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor **HOLLOWAY'S Establishment,**

7 New Oxford St. (late 533 Oxford St.), London.

And so at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House with whom they do be supplied free of charge with Handbills and Posters with their name and address printed at foot.

For Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

Index to Advertisements,

Pages 41, 42.

ESTABLISHED 1843.

THOMPSON & CAPPER,

WHOLESALE AND EXPORT

HOMŒOPATHIC CHEMISTS,

55 Bold St., Liverpool,

And (late HENRY TURNER & CO.)

51 Piccadilly, Manchester,

ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER have now for many years, with the greatest benefit to their Agents throughout the world, supplied, *free of cost*, Books for Gratuitous Distribution, compiled by themselves, containing complete directions for using the Homœopathic Medicines, a plentiful distribution of which invariably ensures a large sale. Handbills also, with name, *ad lib*.

THOMPSON & CAPPER'S

DENTIFRICE WATER.

Sells well everywhere, its beneficial qualities being attested to by physicians in all parts of the world. (See Testimonials.)

In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

TO SAVE MONEY, AVOIDING RISK AND OUTLAY.

CHEMISTS ACCEPTING AN AGENCY FOR
**FELTWELL'S BALSAM OF ANISEED,
LICORICE AND LINSEED,**

The Best Remedy ever sold for COUGHS, COLDS, BRONCHITIS, ASTHMA, CONSUMPTION, CHRONIC COUGH, &c., &c., will find it well worth their attention, paying as well as their own Proprietary articles, with *no risk or expense*.

SPECIAL TERMS TO AGENTS. WRITE FOR PARTICULARS.

Sold in Large Bottles at 1s. 1½d., 2s. 9d., and 4s. 6d. each.

ALMANACS FOR 1884.

The Proprietor of above will be glad to include an Advertisement with any Chemist who intends to issue an **ALMANAC** for 1884, providing no other Cough Preparations are advertised. Send full particulars as to price per page, position, quantity issued, &c., to

J. W. FELTWELL,
DISPENSING CHEMIST,
91 Hammersmith Road, West Kensington, W.

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. **THOMAS & WILLIAM HENRY**, 11 East Street, St. Peter's, Manchester.

And is sold in bottles, authenticated by a Government Stamp bearing their Names and Trade Mark, "Henry's Calcined Magnesia"

Price 4s. 6d., or 2s. 9d.

NEW YORK—MESSRS. J. & S. FERGUSON, Pine Street. PARIS—MESSRS. ROBERTS & CO., 23 Place Vendôme.

WHITE & LANSDALE, successors to

E. GOULD & SON,

(Mr. WHITE many years Manager to Messrs. E. GOULD & SON at above address),

MANUFACTURERS OF HOMŒOPATHIC MEDICINES & SPECIAL PREPARATIONS

"Macniven & Cameron's Pens are the Best."

—Public Opinion.

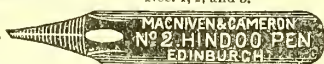
"1,745 NEWSPAPERS RECOMMEND THEM."—See The Graphic.



FOR FINE WRITING.
THE COMMERCIAL PEN.
THE WAVERLEY PEN.

THE PICKWICK PEN.

THE HINDOO PEN,
Nos. 1, 2, and 3.



67 SAMPLE BOX, WITH ALL KINDS, BY POST, 1s.

"They come as a boon and a blessing to men.
The Pickwick, the Owl, and the Waverley Pen."—Oman Times.

"They are a treasure."—Standard.

SHIPPERS AND DEALERS SUPPLIED AT SPECIAL RATES.

PATENTEES OF PENS AND PENHOLDERS,

MACNIVEN & CAMERON, 23 to 33 Blair St., EDINBURGH,

Pen Makers to Her Majesty's Government Offices (Estab. 1770).

"The world owes a debt of gratitude to the Patentees for their excellent inventions."
67 Beware of the party offering imitations of these Pens. —Sun.

TRUSSES

The World's Recognition of Mr.
LONDON—1881—ANNOUNCEMENT.

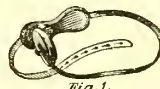
At the late INTERNATIONAL MEDICAL AND SANITARY CON-
GREGATION, the World's most competent Judges recognised
unequalled excellence by granting the

ONLY "AWARD FOR TRUSSES"

"To I. B. SEELEY, PHILADELPHIA, U.S.A."
(Over Sixty-Eight Competitors), confirming their high
prize with America's most distinguished Surgeons.

London Exhibition Judges.—Thomas Bryant, F.R.C.S., Christopher
F.R.C.S., Thomas Smith, F.R.C.S., John Wood, F.R.S., F.R.C.S.

SEELEY'S HARD RUBBER TRUSSES



Fine Steel Springs, neatly covered with highly-polished
Rubber. Made in every desirable pattern; with Pads ana-
logous to the human body, constructed. Light, cool, cleanly, durable; unequalled in
finish, and practical construction. Unaffected by time
climate; used in bathing. Always Reliable. Prices
to meet the popular demands. Sold and supplied by all
Druggists and Dealers. To avoid Spurious Imitations, see
G stamped (Spring and Strap), "I. B. Seeley—Warranted"

Establishments: 1347 Chestnut Street, Philadelphia,
74 Fleet Street, London, England.

The Correct and Skilful Mechanical Treatment of Hernia
RUPTURE A SPECIALTY.

Under Patronage of the world's most distinguished Surgeons.
References.—Professors S. D. Gross, D. Hayes Agnew, Willard
W. H. Pancoast, Dr. Thomas G. Morton, and others.

As success finds envious IMITATORS, ask for "SEELEY'S GELATINE"

KOLA

WHAT IS KOLA ?

KOLA NUT. Certain cure for Dipsomania. Cures drunkenness
in half an hour. Alcohol will not make you drunk if you eat Kola
persevered in it removes the craving for strong drink! Enables
you to undergo long fast and fatigue. Is an appetiser, a tonic
for anyone at any time. See leading article devoted to this
plant, *Daily Telegraph*, Aug. 24, 1883.

SOLD IN BOXES at 2s. 9d. by

HEYMAN & PHILLIPS

15 CLIFFORD STREET, BOND STREET

OR OF ALL CHEMISTS.

Newspaper Notices and Testimonials Free.

Wholesale Agents:—Messrs. BARCLAY, NEWBERRY, LYNCH, HOOD,
EDWARDS, THOMPSON, MILLARD, MAW, SON & THOMPSON, &c.

AGENTS WANTED IN ALL LARGE TOWNS

RESPIRATORS !!

	£	s.	d.
LOD, per doz.	0	8	0
OLIER'S, per doz., No. 8, 18/-; No. 1, 24/-; No. 2, 30/-; No. 3, 42/-;			
No. 4, 48/-; No. 5, 36/-; No. 6	2	14	0
... ..	0	6	0
TION WOOL, per doz.	3	0	0
Oral, 48/-; Orinasal			
AVS ÆTHEREON, per doz.	3	4	0
Silver-plated, 40/-; Gilt			
AVS MICRO-ÆTHEREON, per doz.	3	4	0
Silver-plated, 40/-; Gilt			
AVS INCORRODIBLE METALLIC, per doz., No. 1, 8/-; 1A, 12/-;			
21/-; 2A, 18/-; 3, 30/-; 3A, 24/-; 4, 32/-; 5, 40/-; 6, 45/-; 7, 50/-;			
8, 56/-; Dwarf, No. 1, 24/-; 2, 30/-; 3,	2	0	0
AVS SCARF, each	0	8	0
Silver-plated, 5/6; Gilt			
IGHTINGALE'S INVISIBLE, each	0	14	0
No. 1, 3/8; No. 2, 7/-; No. 3,			
DOFF'S, per doz.	3	3	0
19/-, 27/-, 39/-, 48/-, and			
DOFF'S ORINASAL CHARCOAL, for preventing the Inhalation of			
deleterious Vapours and Poisonous Powders in Chemical and Manufacturing			
establishments each	0	5	6

Antiseptic Inhalers.

	£	s.	d.
WILKIN'S—			
ATENT POCKET, Tube Form, Glass each	0	2	8
ATENT POCKET, Tube Form, Metal	0	4	2
ATENT POCKET, Tube Form, Vulcanite	0	4	2
ATENT POCKET, Bottle Form, Vulcanite	0	8	0
ATENT POCKET, Bottle Form, Cut Glass	0	8	0
ATENT POCKET, Tube Form, Pure Silver	0	16	0
ARBOLATE OF IODINE for above	0	0	9
UBULETTES for Inhalers	0	0	9
OGILL'S, Fig. 1, each Metal, 2/8; Metal-covered	0	5	0
(Solution extra, 1/-)			
OGILL'S IMPROVED, Nickel-plated, Fig. 5 each	0	3	0
(Solution extra, 1/-)			
OSGRAVE'S each	0	4	0
ACKENZIE'S, with Solution, Fig. 6, each	0	8	6
Bronzed, 4/6; Nickel-plated			
OBRTS', Fig. 2, each	0	3	6
Bronzed, 2/4; Nickel-plated			

S. MAW, SON & THOMPSON,
ALDERSGATE STREET, LONDON.

THE ONLY PERFECT ENEMA OBTAINABLE

INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of Rubber, thus adding great strength and durability.

CAUTION.—The only Enema made without Ribs.



Surface, and are always liable to split.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.

WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process greatly increases its STRENGTH and DURABILITY, and, at the same time, dispenses with ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz.: SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED PIN VALVE at the suction end A; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, who supply the three following qualities:—

- No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.
- No. 1b. Unpolished, in Red, Green, Blue, Black, or White.
- No. 2. Unpolished, in Drab only.

GOLD MEDAL, VIENNA, 1883.

ORIGINALITY AND RELIABILITY

RECEIVED HIGHEST AWARDS—MEDALS AND DIPLOMAS—OVER
ALL EUROPEAN AND AMERICAN COMPETITORS.

PHILADELPHIA, 1876,
MELBOURNE, 1880,
NEW YORK, 1881,

PARIS, 1878,
NEW YORK, 1880,
ATLANTA, 1881,

NEW YORK, 1879,
MATANZAS, 1881,
CHARLESTON, 1882.

SEABURY & JOHNSON,

MANUFACTURERS OF

Rubber, Medicinal, Adhesive,
Bunion, Corn, Court,

PLASTERS

Kid, Leather, Mustard, Spread,
Pharmaceutical and Surgical

Every description, in the most approved form. Also, Absorbent, Borated, Salicylated and
Carbolated Cotton, Antiseptic Gauze, Bandages, Cotton Wool, Gutta Percha Tissue,
Lint, Oil Silk and Muslin, and every variety of Surgical and Antiseptic Dressings.

SPECIALTY:—Pharmacopoeia & Surgical Plasters, in India Rubber Combination, Porous & Spread.

Office & Salesroom, 1 & 2 Australian Ave., London, E. C., England.

TERMS FOR 1882.

MONTHLY SETTLEMENTS. ONE PER CENT. FOR CASH WILL BE ALLOWED, PROVIDED BILLS ARE REMITTED FOR WITHIN TEN
DAYS FROM DATE OF SHIPMENT, NOT OTHERWISE.

DISCOUNTS:—Goods to be selected from our List at pleasure.

Orders amounting to £25, nett, will be subject to - - - 20 per cent. discount.
" " 10, " " " " " 15 " "
" " 5, " " " " " 10 " "

Orders under £5, nett, - - - long prices will be charged without discount.

CARRIAGE ALLOWED OR PREPAID ON £25, NETT, ORDERS ONLY.

EVERY ARTICLE WARRANTED.

Pharmacopoeia & Medicinal India Rubber Porous Plasters.

Packed two dozen in a box. Size, 5x7½ inches.

	per gross,	£ s. d.
Acute.....	3 0 0	
Arna.....	2 8 0	
Bellonna.....	2 14 0	
Capum.....	2 0 0	
Iron.....	2 8 0	
Opit.....	3 12 0	
Poor Man's.....	2 8 0	
Strengthening.....	1 10 0	
Wit, Hazel.....	3 0 0	

Special Formula made to order. A full line of Plain
Spread and Porous at same rates.

YARD ROLLS

Pharmacopoeia & Medicinal Plas- ters, in Rubber Combination.

Porous or Plain Spread, size, 7 in. wide by 1 yard long.

	per dozen,	£ s. d.
Acute and Belladonna.....	1 16 0	
Belladonna.....	1 7 6	
Bliss, Cantharidal.....	1 7 6	
Capum.....	1 7 6	
Mercurial.....	1 16 0	
Opit.....	1 16 0	
Pitche Burgundy.....	1 7 6	
Robins.....	1 7 6	
Thay.....	1 7 6	
Waring.....	1 7 6	

A full line, Plain and Porous.

BREAST PLASTERS

OR

Belladonna, Lead & Phytolacca Decandra,
SEPARATELY OR IN COMBINATION.

One dozen in a box. 6 & 7 inches in diameter, Porous and
Plain Spread.

Mead's Adhesive Plaster,

PLIABLE AND ANTISEPTIC.

5 yd. rolls, 14 inches wide.....per 5 yd. roll, 5s. 0d.
1 yd. rolls, 7 inches wide.....per dozen, 14 0

May also be had in Spools, ½, 1, 2 and 3 inches wide.

Salicylated I. R. Adhesive Plaster,

Porous or Plain Spread, on Strong Cotton Cloth.

Yard Rolls, 7 inches wideper dozen, 17s. 0d.
5 yard Rolls, 7 inches wide.....per roll, 6 6

May also be had in Spools, ½, 1, 2 and 3 inches wide,

AND

On Twilled Linen and Moleskin.

Corn and Bunion Plasters.

Mead's MEDICATED.....per dozen boxes, 8s. 0d.

Each box contains one dozen Plasters.

Also a full line of Arnicated Corn and Bunion Plasters,
round, oval and Square, all styles, thick and thin; in Glass
Top Boxes, and containing each 1 gro. Corn or ½ gro. Bunion.

COURT PLASTER.

40 different styles, elegant and Balsamic.

Surgeons' Salicylated Isinglass Plaster.

On fine, pure silk, "Flesh, White or Black."
7 inches wide, 1 yard long.....per dozen, £1 2s. 0d.

Also, on Tracing Cloth and Muslin.

Mustard Plasters,

Spread on Cotton Cloth.

Tins, containing 10 leaves.....per dozen, 10s. 0d.
Envelopes, containing 6 leaves....." 6 0
Envelopes, containing 3 leaves....." 3 0
Yard Rolls, 6 inches wide....." 10 0
Half-yard Rolls, 6 inches wide....." 6 0

Antiseptics and Absorbents.

A most extensive line, comprising Absorbent, Borated,
Carbolated and Salicylated Cottons; Hospital and Flax Lint;
Oil Silk and Muslin, Gutta Percha Tissue; Carbolated, An-
tiseptic, Eucalyptus and Iodoform Gauze; Roller, Flannel
and Rubber Bandages, Catgut Ligature, and

Surgical Dressings of every description.

SPECIAL NOTICE.

Our New Catalogue of Specialties is ready for delivery, and contains a complete assort-
ment of our preparations. A copy will be sent to any Chemist on application to
Yours very truly,

SEABURY & JOHNSON, 1 and 2 Australian Avenue, London, E. C.

QUALITY IS OF FIRST IMPORTANCE

GOLD MEDAL, VIENNA, 1883.

WRIGHT'S

origin to too slow a current of blood, of which the most typical example is that seen in Eczema connected with varicose veins of the leg—but to the same category also many examples of Pruritis Scroti, Labiorum and Ani may be referred—is best relieved by careful flannel bandages, well applied suspensory bandages and laxative salts or mineral waters, which unload the rectum by freeing the portal circulation, combined locally with weak tarry lotion, one of the best of which is Wright's Liqueur Carbonis Detergens, a well-made alcoholic solution of Coal Tar, suitably diluted."

LIQUOR

From the *Lancet*, Dec. 22nd, 1866:—"In our hands it has been a most effective agent in skin diseases, especially the chronic eczematous class; and one case psoriasis, which had resisted all other kinds of treatment, speedily got well under the application of the Liqueur Carbonis Detergens. We esteem it a very valuable addition to our list of skin remedies."

From the *Medical Times and Gazette*, January 19th, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

CARBONIS

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies.

From the *British Medical Journal*, Sept. 22nd, 1871:—"We have tested it, and can affirm its value as a detergent agent. We consider the Liqueur is an article of great utility."

Proprietors:

W. V. WRIGHT & CO.,
Southwark Street, London.

DETERGENS.

UMNEY'S

Made from Bark of Cinchona Succirubra, as grown in Government Plantations of British India.

At the Medical International Congress, London the Indian Bark was declared to be the bark of the future.

Extensively used in Private and Hospital Practice, on account of its Elegance, Medicinal Value, Moderate Cost. See Opinions of the Medical and Pharmaceutical Press, and testimony as to its superiority over all other Fluid Preparations of Cinchona.

FLUID EXTRACT

OF

CINCHONA.

Price 10s. 6d. per lb.

To be obtained of all Druggists (Wholesale and Retail) in the United Kingdom.

IN ORDERING SPECIFY "UMNEY'S."

Lancet.—"An excellent preparation—contains all the alkaloids of the Bark."

Medical Times and Gazette.—"An excellent, elegant, reliable, and very convenient preparation."

Medical Press and Circular.—"Used in Hospital and private practice with the most satisfactory results."

Pharmaceutical Journal.—"Excellent preparation furnishing the constituents of the Bark in a concentrated form."

Chemist and Druggist.—"Pharmaceutically worthy of the valuable medicine which it represents."

WRIGHT, LAYMAN & UMNEY,
SOUTHWARK STREET, LONDON, S.E.